

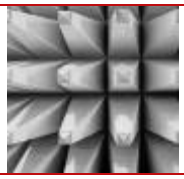

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TEST REPORT

Test report no.: 1-5842/13-01-08

ilac-MRA DAkkS Deutsche Akkreditierungsstelle D-PL-12076-01-01

Testing laboratory

CETECOM ICT Services GmbH
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Accredited Testing Laboratory:
The testing laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025 (2005) by the Deutsche Akkreditierungsstelle GmbH (DAkkS)
The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate with the registration number: D-PL-12076-01-01
Area of Testing: Radio/Satellite Communications

Applicant

Philips Medizin Systeme Böblingen GmbH
Hewlett-Packard-Strasse 2
71034 Böblingen / GERMANY
Fax: +49 7031 463-2442
Contact: Markus Stacha
e-mail: markus.stacha@philips.com
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Manufacturer

Philips Medizin Systeme Böblingen GmbH
Hewlett-Packard-Strasse 2
71034 Böblingen / GERMANY

Test standard/s

47 CFR Part 15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices
RSS - 210 Issue 8	Spectrum Management and Telecommunications - Radio Standards Specification Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment

For further applied test standards please refer to section 3 of this test report.

Test Item

Kind of test item:	**WLAN Module IEEE 802.11 a/b/g/n**
Model name:	**WLANBV2-A**
FCC ID:	**PQC-WLANBV2**
IC:	**3549C-WLANBV2**
Frequency:	ISM band 2400 MHz to 2483.5 MHz Lowest channel 2412 MHz; highest channel 2462 MHz)
Technology tested:	WLAN
Antenna:	4 different external antennas
Power Supply:	3.3 V DC
Temperature Range:	-10°C to 70°C

This test report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Test report authorised:

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Marco Bertolino
Testing Manager

1 Table of contents

2 General information

2.1 Notes and disclaimer

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2.2 Application details

Date of receipt of order:	2013-02-01
Date of receipt of test item:	2013-02-04
Start of test:	2013-04-22
End of test:	2013-07-25
Person(s) present during the test:	-/-

3 Test standard/s

Test standard	Date	Test standard description
47 CFR Part 15	01.10.2012	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices
RSS - 210 Issue 8	01.12.2010	Spectrum Management and Telecommunications - Radio Standards Specification Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment

4 Test environment

Temperature:	T_{nom}	+22	°C during room temperature tests
	T_{max}	+55	°C during high temperature tests
	T_{min}	-20	°C during low temperature tests
Relative humidity content:		55 %	
Barometric pressure:		not relevant for this kind of testing	
Power supply:	V_{nom}	3.3 V	DC
	V_{max}	5.5 V	
	V_{min}	4.5 V	

5 Test item

Kind of test item	**:**	**WLAN Module IEEE 802.11 a/b/g/n**
Type identification	**:**	**WLANBV2-A**
S/N serial number	**:**	**Radiated sample: 4DF7B4** **Conducted sample: 4DF75A**
HW hardware status	**:**	**PW100120BA**
SW software status	**:**	**3.2.0.137 api 3**
Frequency band [MHz]	**:**	**ISM band 2400 MHz to 2483.5 MHz** **Lowest channel 2412 MHz; highest channel 2462 MHz)**
Type of radio transmission **Use of frequency spectrum**	**:** **:**	**DSSS, OFDM**
Type of modulation	**:**	**BPSK, QPSK, 16-QAM, 64-QAM**
Number of channels	**:**	**11**
Antenna	**:**	**4 different external antennas:** **Ant M3002-66494** **Ant 453564154611** **Ant 453564175981** **Ant 453564271931**
Power supply	**:**	**3.3 V DC**
Temperature range	**:**	**-10°C to 70°C**

6 Test laboratories sub-contracted

None

7 Summary of measurement results

☒ **No deviations from the technical specifications were ascertained**

☐ There were deviations from the technical specifications ascertained

TC Identifier	Description	Verdict	Date	Remark
RF-Testing	CFR Part 15 RSS 210, Issue 8	Passed	2013-08-07	-

Test specification clause	Test case	Guideline	Temperature conditions	Power source voltages	Mode	Pass	Fail	NA	NP	Remark
§15.247(b)(4) RSS 210 / A8.4(2)	Antenna gain	-/-	Nominal	Nominal	DSSS	☒	☐	☐	☐	complies
§15.247(e) RSS 210 / A8.2(b)	Power spectral density	KDB 558074 DTS clause: 10.2	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
§15.247(a)(2) RSS 210 / A8.2(a)	Spectrum bandwidth – 6 dB bandwidth	KDB 558074 DTS clause: 8.2	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
RSS Gen clause 4.6.1	Occupied bandwidth	-/-	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
§15.247(b)(3) RSS-210 / A8.4(4)	Maximum output power	KDB 558074 DTS clause: 9.1.2	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
§15.247(d) RSS-210 / A8.5	Band edge compliance conducted	KDB 558074 DTS clause: 13.2.1	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
§15.205 RSS-210 / A8.5	Band edge compliance radiated	-/-	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
§15.247(d) RSS-210 / A8.5	TX spurious emissions conducted	KDB 558074 DTS clause: 11.1 & 11.2	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
§15.247(d) RSS-210 / A8.5	TX spurious emissions radiated	-/-	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
§15.109 RSS-Gen	RX spurious emissions radiated	-/-	Nominal	Nominal	-/-	☒	☐	☐	☐	complies
§15.209(a) RSS-Gen	TX spurious emissions radiated < 30 MHz	-/-	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies
§15.107(a)	Conducted emissions < 30 MHz	-/-	Nominal	Nominal	DSSS OFDM g & n	☒ ☒	☐ ☐	☐ ☐	☐ ☐	complies

Note: NA = Not Applicable; NP = Not Performed

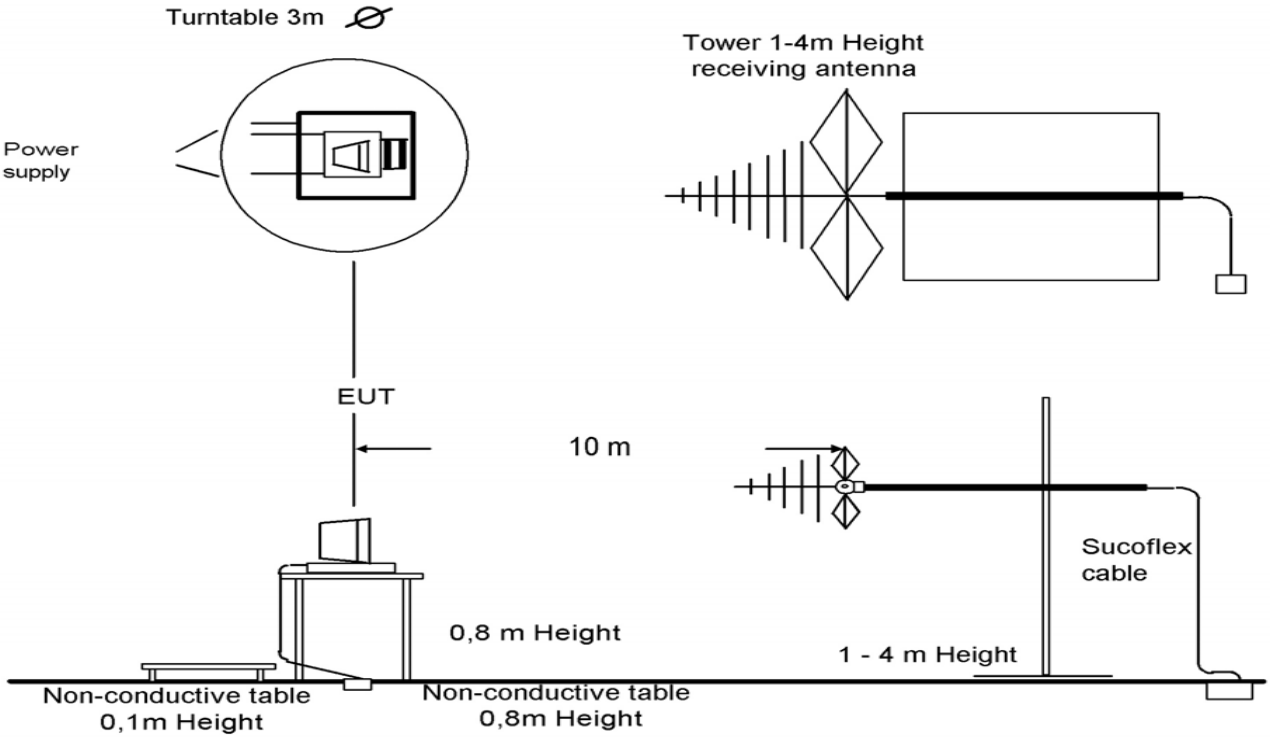
8 RF measurements

8.1 Description of test setup

8.1.1 Radiated measurements

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 25 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber. The receiving antennas are confirmed with specifications ANSI C63.2-1996 clause 15 and ANSI C63.4-2009 clause 4.1.5. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test setups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received. The wanted and unwanted emissions are received by spectrum analysers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63-4-2009 clause 4.2.
Antennas are confirmed with ANSI C63.2-1996 item 15.

Semi anechoic chamber



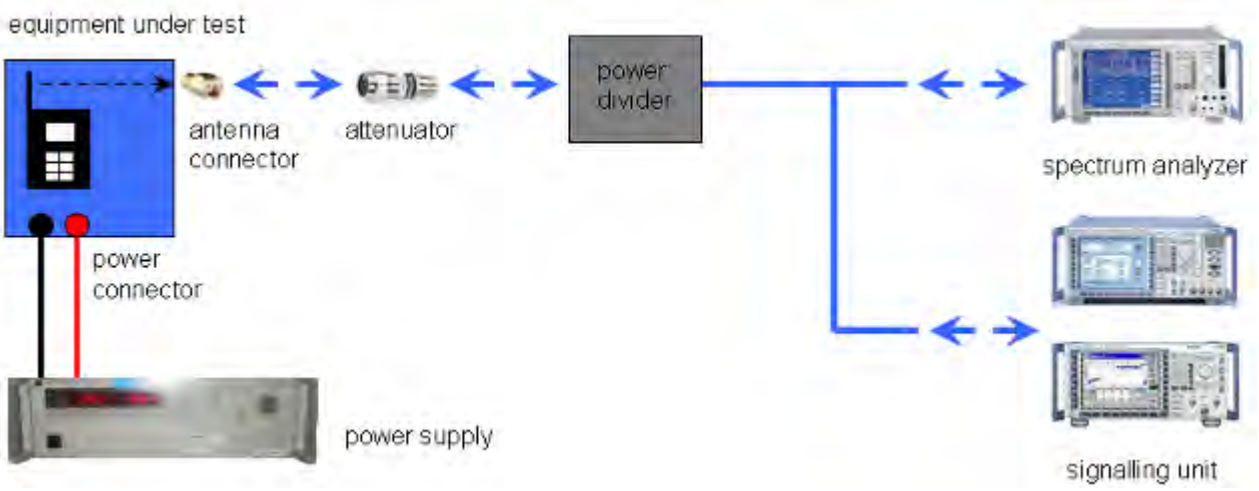
Picture 1: Diagram radiated measurements

9 kHz - 30 MHz:	active loop antenna
30 MHz – 1 GHz:	tri-log antenna
> 1 GHz:	horn antenna

The EUT is powered by an external power supply with nominal voltage. The signalling is performed from outside the chamber with a signalling unit (CMU200 or other) by air link using signalling antenna.

8.1.2 Conducted measurements

The EUT's RF signal is coupled out by the antenna connector which is supplied by the manufacturer. The signal is first 10dB attenuated before it is power divided (~6dB loss per branch). One of the signal paths is connected to the communication base Station (CMU200 or other), the other one is connected to the spectrum analyzer. The specific losses for both signal paths are first checked within a calibration. The measurement readings on the signalling unit/spectrum analyzer are corrected by the specific test set-up loss. The attenuator, power divider, signalling unit and the spectrum analyzer are impedance matched on 50 Ohm.



Picture 2: Diagram conducted measurements

8.2 Additional comments

Reference documents: None

Special test descriptions: Four different antennas used. See Annex B for details.
The device was configured for Testmode and the individual power settings with the following commands:

b-Mode:
athtestcmd -iwlan0 --tx tx100 --txfreq 2412 --txrate 0 --txpwr 13
athtestcmd -iwlan0 --tx tx100 --txfreq 2437 --txrate 0 --txpwr 13
athtestcmd -iwlan0 --tx tx100 --txfreq 2462 --txrate 0 --txpwr 13

g-Mode:
athtestcmd -iwlan0 --tx tx100 --txfreq 2412 --txrate 0 --txpwr 13
athtestcmd -iwlan0 --tx tx100 --txfreq 2437 --txrate 0 --txpwr 13
athtestcmd -iwlan0 --tx tx100 --txfreq 2462 --txrate 0 --txpwr 13

HT20-Mode:
athtestcmd -iwlan0 --tx tx100 --txfreq 2412 --txrate 12 --txpwr 7
athtestcmd -iwlan0 --tx tx100 --txfreq 2437 --txrate 12 --txpwr 12.5
athtestcmd -iwlan0 --tx tx100 --txfreq 2462 --txrate 12 --txpwr 7.5

HT40-Mode:
athtestcmd -iwlan0 --tx tx100 --txfreq 2422 --mode ht40plus --txrate 20 --txpwr 7
athtestcmd -iwlan0 --tx tx100 --txfreq 2437 --mode ht40plus --txrate 20 --txpwr 12.5
athtestcmd -iwlan0 --tx tx100 --txfreq 2452 --mode ht40plus --txrate 20 --txpwr 7.5

Configuration descriptions: None

Test mode:

☐ No test mode available.
Iperf was used to ping another device with the largest support packet size

☒ Special software is used.
EUT is transmitting pseudo random data by itself

8.3 RSP100 test report cover sheet / performance test data

Test report number	:	**1-5842/13-01-08**				
Equipment model number:		**WLANBV2-A**				
Certification number	:	**3549C-WLANBV2**				
Manufacturer (complete address)	:	**Philips Medizin Systeme Böblingen GmbH Hewlett-Packard-Strasse 2 71034 Böblingen / GERMANY**				
Tested to radio standards specification no.	:	**RSS 210, Issue 8**				
Open area test site IC No.	:	**IC 3462C-1**				
Frequency range	:	**ISM band 2400 MHz to 2483.5 MHz**				
RF-power (max.)	:	**Conducted values:**				
		Band	**b – mode**	**g – mode**	**n HT20 – mode**	**n HT40 – mode**
		2412 – 2462 MHz	**24.7 mW**	**46.6 mW**	**39.0 mW**	
		2422 – 2462 MHz				**43.1 mW**
		Radiated values:				
		Band	**b – mode**	**g – mode**	**n HT20 – mode**	**n HT40 – mode**
		2412 – 2462 MHz				
		Antenna: M3002-66494	**60.3 mW**	**109.6 mW**	**91.2 mW**	
		Antenna: 453564154611	**31.6 mW**	**57.5 mW**	**47.9 mW**	
		Antenna: 453564175981	**49.0 mW**	**77.6 mW**	**64.6 mW**	
		Antenna: 453564271931	**45.7 mW**	**87.1 mW**	**72.4 mW**	
		2422 – 2462 MHz				
		Antenna: M3002-66494				**100.0mW**
		Antenna: 453564154611				**52.5 mW**
		Antenna: 453564175981				**70.8 mW**
		Antenna: 453564271931				**79.4 mW**
Occupied bandwidth (99%-BW)	:	**Band**	**b – mode**	**g – mode**	**n HT20 – mode**	**n HT40 – mode**
		2412 – 2462 MHz	**14.1 MHz**	**17.6 MHz**	**18.6 MHz**	
		2422 – 2462 MHz				**37.7MHz**
Necessary bandwidth (calculated)	:	**Band**	**b – mode**	**g – mode**	**n HT20 – mode**	**n HT40 – mode**
		2412 – 2462 MHz	**12.8 MHz**	**16.9 MHz**	**16.9 MHz**	
		2422 – 2462 MHz				**33.8**
Emission classification	:	**(according TRC-43)**	**G1D**	**G7D**	**G7D**	**G7D**
Type of modulation	:	**DSSS & OFDM technology with BPSK, QPSK, 16 – and 64 QAM modulation.**				
Antenna information	:	**4 different external antennas: Ant M3002-66494 Ant 453564154611 Ant 453564175981 Ant 453564271931**				
Transmitter spurious [dBµV/m @ 10m]	:	**35.7 @ 222.6 MHz (Quasi-Peak)**				

ATTESTATION:
DECLARATION OF COMPLIANCE:
I attest that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned Industry Canada standard(s); and that the equipment identified in this application has been subjected to all the applicable test conditions specified in the Industry Canada standards and all of the requirements of the standard have been met.

Laboratory manager:

2013-08-07	**Marco Bertolino**	p.o.  cn=Christoph Schneider, o=CETECOM ICT Services GmbH, ou=SND-120402, email=christoph.schneider@cetecom.com, c=DE 2013.08.07 16:01:53 +02'00'
Date	Name	Signature

9 Measurement results

9.1 Antenna gain

The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module. For normal WLAN devices, the DSSS mode is used.

Measurement parameters:

Measurement parameter	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	3 MHz
Video bandwidth:	3 MHz
Trace-Mode:	Max hold

Limits:

FCC	IC
Antenna Gain	
6 dBi	

Results:

Antenna 1: M3002-66494

T_{nom}	V_{nom}	lowest channel 2412 MHz	middle channel 2437 MHz	highest channel 2462 MHz
Conducted power [dBm] Measured with DSSS modulation		11.5	11.8	11.6
Radiated power [dBm] Measured with DSSS modulation		15.5	15.5	15.6
Gain [dBi] Calculated		4.0	3.7	4.0
Measurement uncertainty		± 1.5 dB (cond.) / ± 3 dB (rad.)		

Antenna 2: 453564154611

T_{nom}	V_{nom}	lowest channel 2412 MHz	middle channel 2437 MHz	highest channel 2462 MHz
Conducted power [dBm] Measured with DSSS modulation		11.5	11.8	11.6
Radiated power [dBm] Measured with DSSS modulation		13.1	12.7	12.2
Gain [dBi] Calculated		1.6	0.9	0.6
Measurement uncertainty		± 1.5 dB (cond.) / ± 3 dB (rad.)		

Antenna 3: 453564175981

T_{nom}	V_{nom}	lowest channel 2412 MHz	middle channel 2437 MHz	highest channel 2462 MHz
Conducted power [dBm] Measured with DSSS modulation		11.5	11.8	11.6
Radiated power [dBm] Measured with DSSS modulation		13.8	14.0	14.7
Gain [dBi] Calculated		2.3	2.2	3.1
Measurement uncertainty		± 1.5 dB (cond.) / ± 3 dB (rad.)		

Antenna 4: 453564271931

T_{nom}	V_{nom}	lowest channel 2412 MHz	middle channel 2437 MHz	highest channel 2462 MHz
Conducted power [dBm] Measured with DSSS modulation		11.5	11.8	11.6
Radiated power [dBm] Measured with DSSS modulation		14.7	14.5	13.6
Gain [dBi] Calculated		3.2	2.7	2.0
Measurement uncertainty		± 1.5 dB (cond.) / ± 3 dB (rad.)		

Result: **Passed**

9.2 Maximum output power

Description:

Measurement of the maximum output power conducted and radiated. The measurements are performed using the data rate producing the highest conducted output power.

Measurement:

Measurement parameter	
According to DTS clause: 9.1.2	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	1 MHz
Video bandwidth:	3 MHz
Span:	40 MHz
Integration bandwidth:	75 % power - bandwidth (DTS BW)
Trace-Mode:	Max hold (allow trace to fully stabilize)
Measurement function:	Channel power with DTS BW

Limits:

FCC	IC
Maximum Output Power	
Conducted: 1.0 W – Antenna Gain max. 6 dBi	

Results: DSSS / b – mode

DSSS / b – mode	Maximum Output Power [dBm]		
Frequency	2412 MHz	2437 MHz	2462 MHz
Peak output power conducted	13.4	13.9	13.8
Output Power Radiated – EIRP*) Antenna: M3002-66494	17.4	17.6	17.8
Output Power Radiated – EIRP*) Antenna: 453564154611	15.0	14.8	14.4
Output Power Radiated – EIRP*) Antenna: 453564175981	15.7	16.1	16.9
Output Power Radiated – EIRP*) Antenna: 453564271931	16.6	16.6	15.8
Measurement uncertainty	± 1.5 dB (cond.) / ± 3 dB (rad.)		

*) calculated with Antenna gain

Result: **Passed**

Results: OFDM / g – mode

OFDM / g – mode	Maximum Output Power [dBm]		
Frequency	2412 MHz	2437 MHz	2462 MHz
Peak output power conducted	13.80	16.7	14.1
Output Power Radiated – EIRP*) Antenna: M3002-66494	17.8	20.4	18.1
Output Power Radiated – EIRP*) Antenna: 453564154611	15.4	17.6	17.2
Output Power Radiated – EIRP*) Antenna: 453564175981	16.1	18.9	17.2
Output Power Radiated – EIRP*) Antenna: 453564271931	17.0	19.4	16.1
Measurement uncertainty	± 1.5 dB (cond.) / ± 3 dB (rad.)		

*) calculated with Antenna gain

Result: **Passed**

Results: OFDM / n – mode HT 20

OFDM / n – mode HT20	Maximum Output Power [dBm]		
Frequency	2412 MHz	2437 MHz	2462 MHz
Peak output power conducted	13.1	15.9	13.0
Output Power Radiated – EIRP*) Antenna: M3002-66494	17.1	19.6	17.0
Output Power Radiated – EIRP*) Antenna: 453564154611	14.7	16.8	13.6
Output Power Radiated – EIRP*) Antenna: 453564175981	15.4	18.1	16.1
Output Power Radiated – EIRP*) Antenna: 453564271931	16.3	18.6	15.0
Measurement uncertainty	± 1.5 dB (cond.) / ± 3 dB (rad.)		

*) calculated with Antenna gain

Result: **Passed**

Results: OFDM / n – mode HT 40

OFDM / n – mode HT20	Maximum Output Power [dBm]		
Frequency	2422 MHz	2437 MHz	2452 MHz
Peak output power conducted	13.5	16.3	15.5
Output Power Radiated – EIRP*) Antenna: M3002-66494	17.5	20.0	19.5
Output Power Radiated – EIRP*) Antenna: 453564154611	15.1	17.2	16.1
Output Power Radiated – EIRP*) Antenna: 453564175981	15.8	18.5	18.6
Output Power Radiated – EIRP*) Antenna: 453564271931	16.7	19.0	17.5
Measurement uncertainty	± 1.5 dB (cond.) / ± 3 dB (rad.)		

*) calculated with Antenna gain

Result: **Passed**

9.3 Power spectral density

Description:

Measurement of the power spectral density of a digital modulated system. The measurement is repeated for both modulations at the lowest, middle and highest channel.

Measurement:

Measurement parameter	
According to DTS clause: 10.2	
Detector:	Peak
Sweep time:	5s
Resolution bandwidth:	3 kHz
Video bandwidth:	10 kHz
Span:	20 MHz
Trace-Mode:	Max hold (allow trace to fully stabilize)

Limits:

FCC	IC
Power Spectral Density	
8 dBm (conducted)	

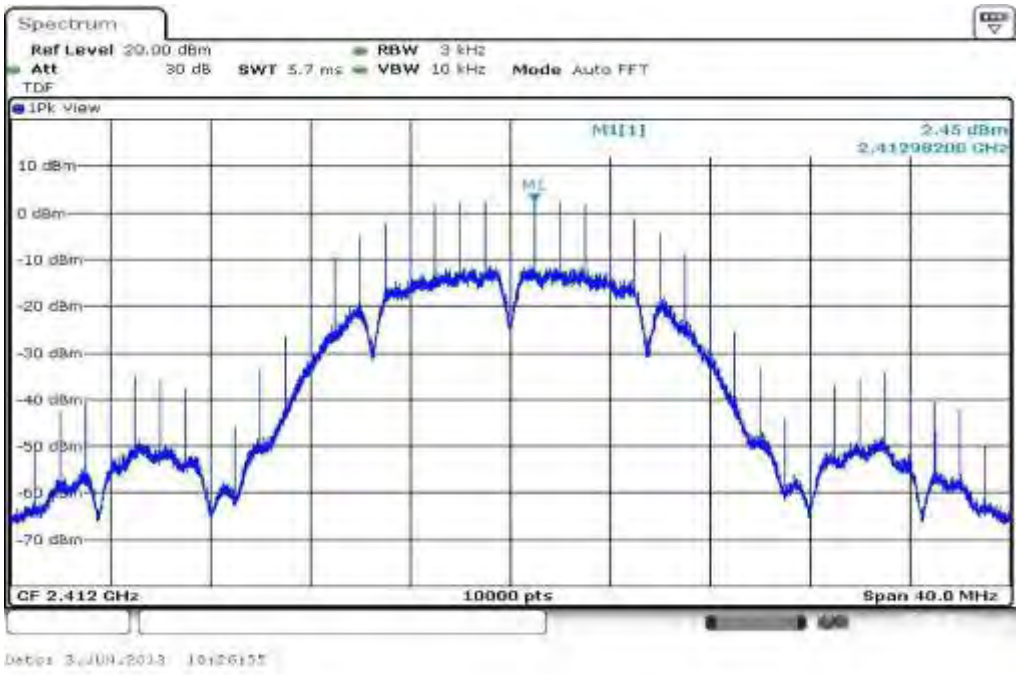
Results:

Modulation	Power Spectral density [dBm]		
Frequency	Lowest channel	Middle channel	Highest channel
DSSS / b – mode	2.45	2.90	2.71
OFDM / g – mode	-17.43	-13.53	-16.66
OFDM / n – mode HT20	-17.38	-15.73	-16.90
OFDM / n – mode HT40	-21.30	-18.13	-19.08
Measurement uncertainty	± 1.5 dB		

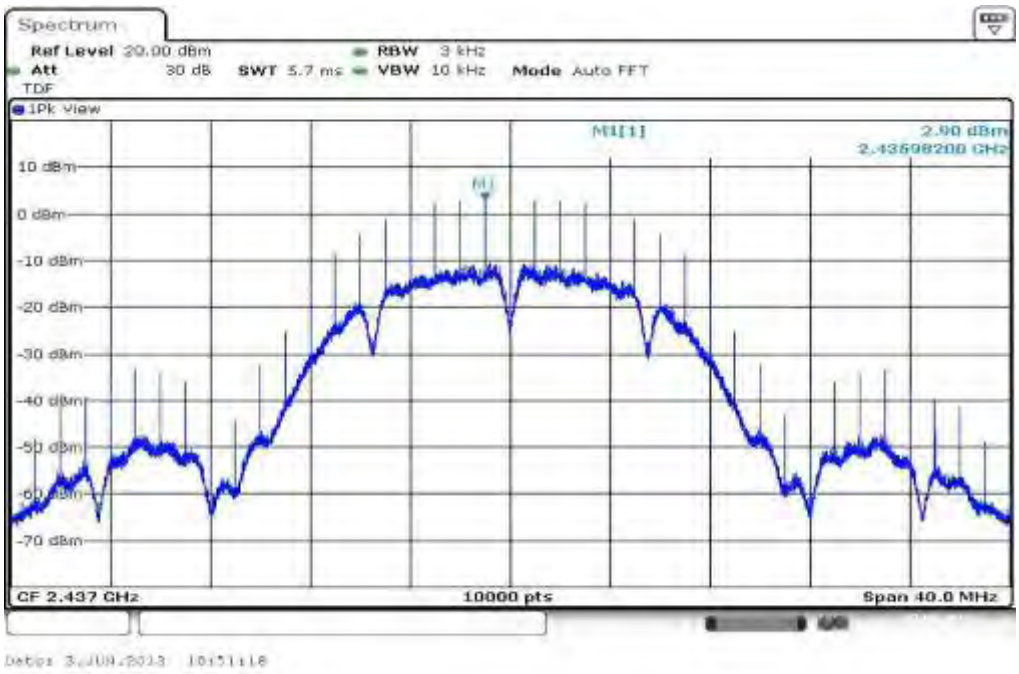
Result: Passed

Plots: DSSS / b – mode

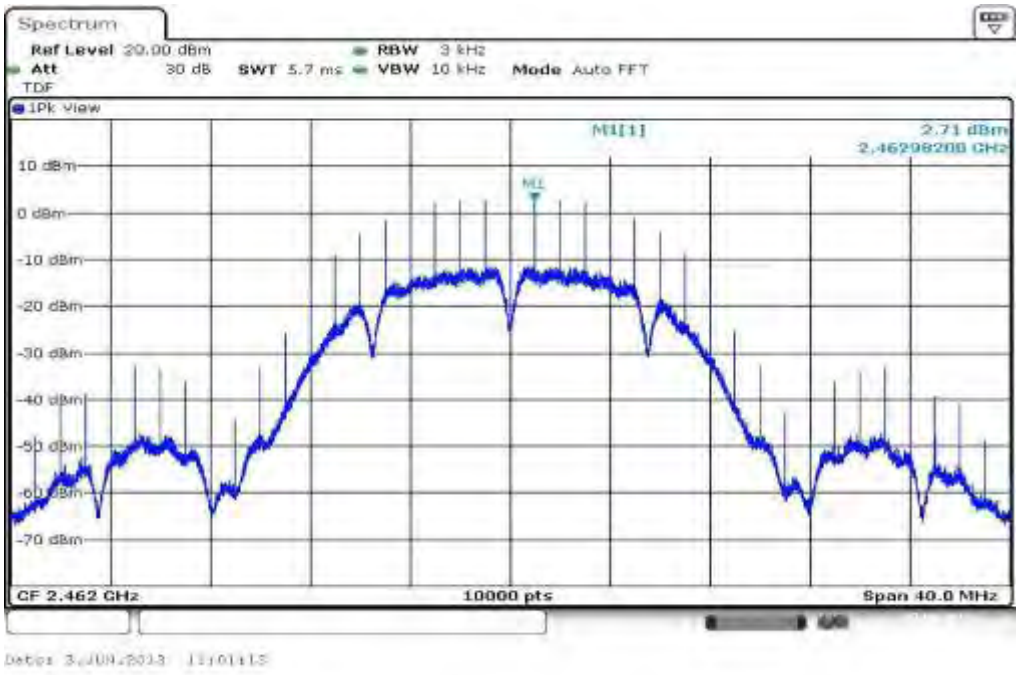
Plot 1: TX mode, lowest channel



Plot 2: TX mode, middle channel

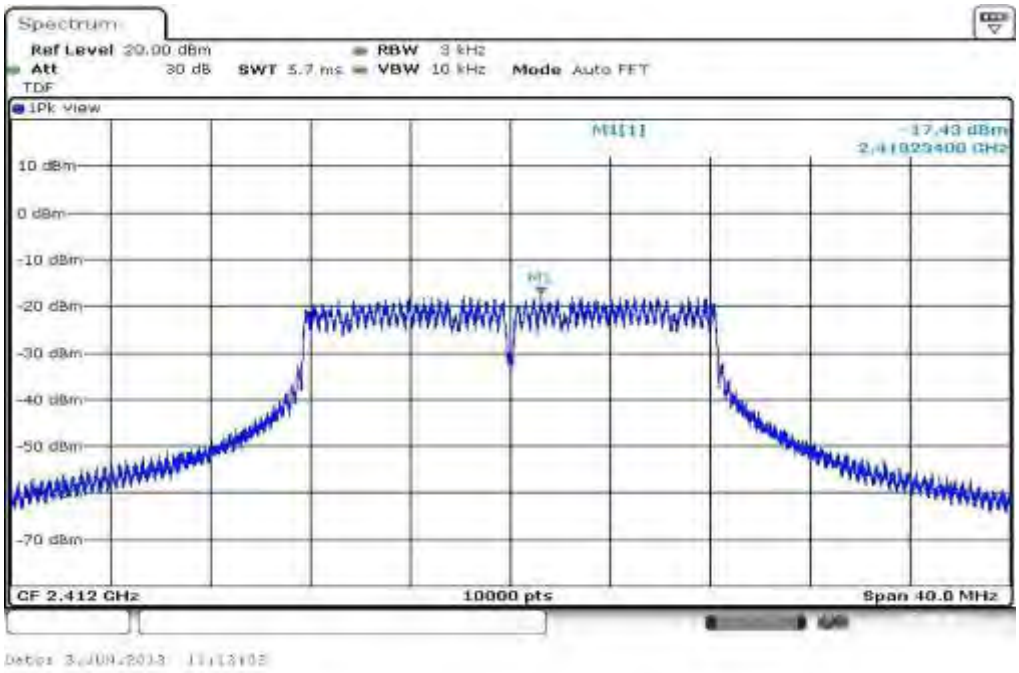


Plot 3: TX mode, highest channel

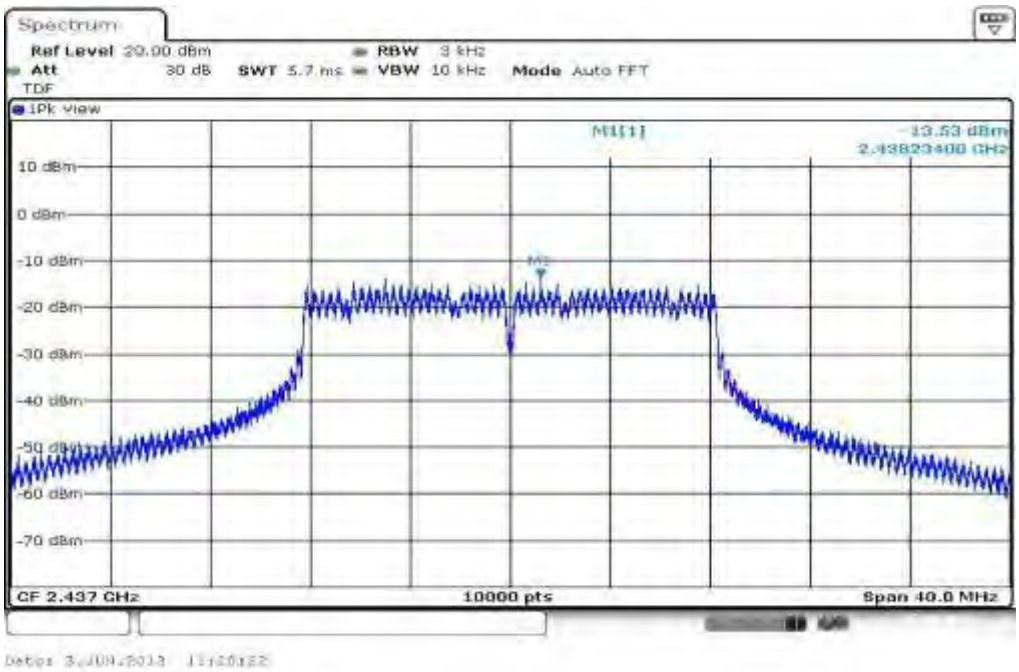


Plots: OFDM / g – mode

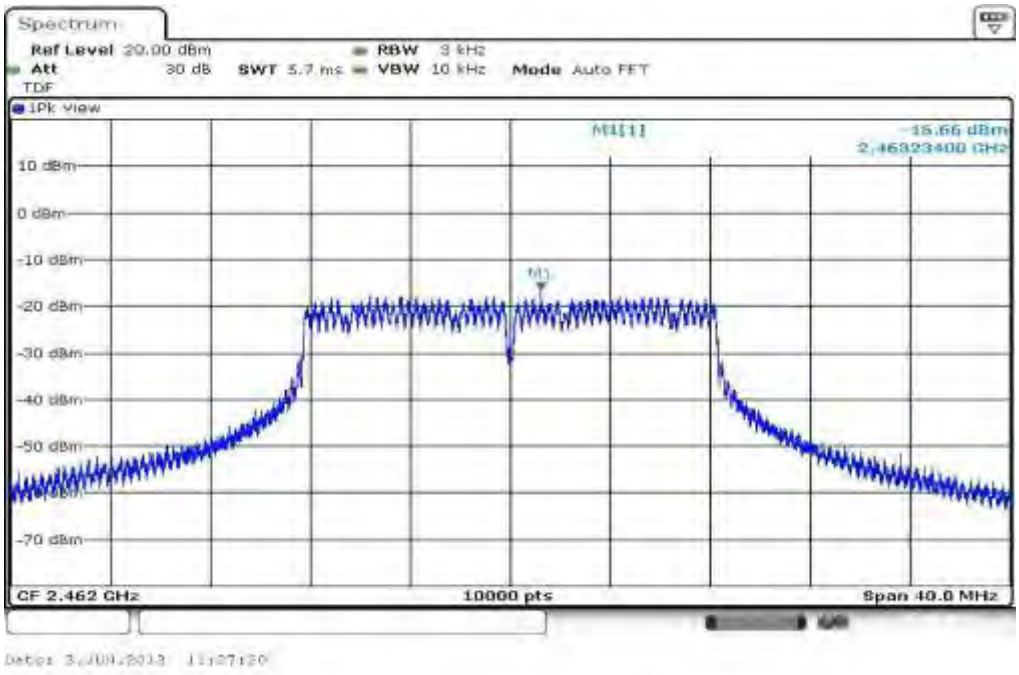
Plot 1: TX mode, lowest channel



Plot 2: TX mode, middle channel

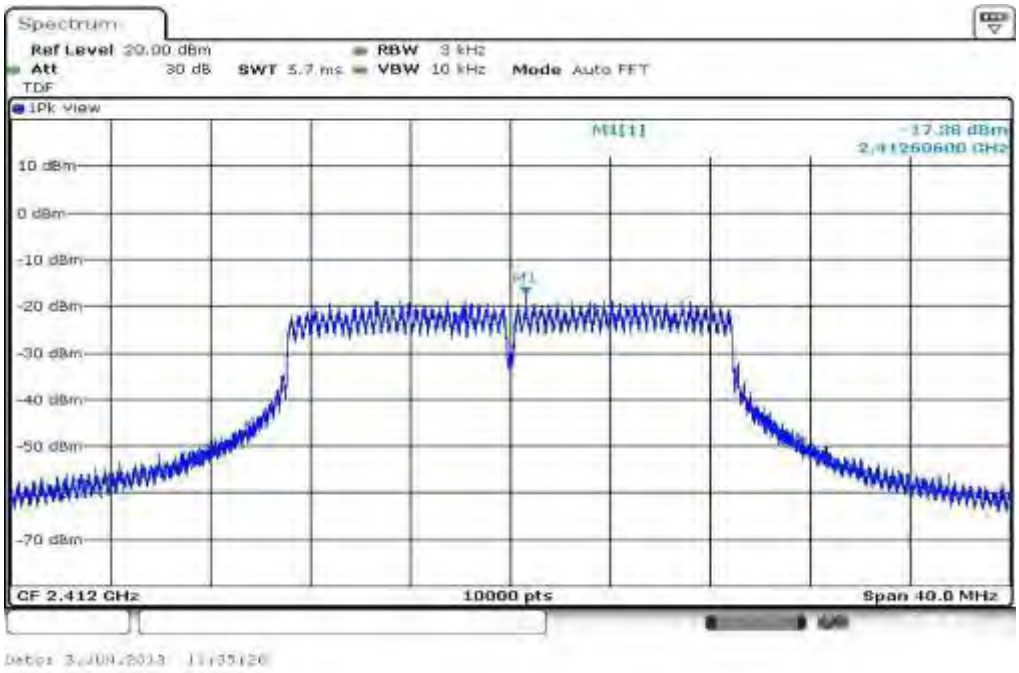


Plot 3: TX mode, highest channel

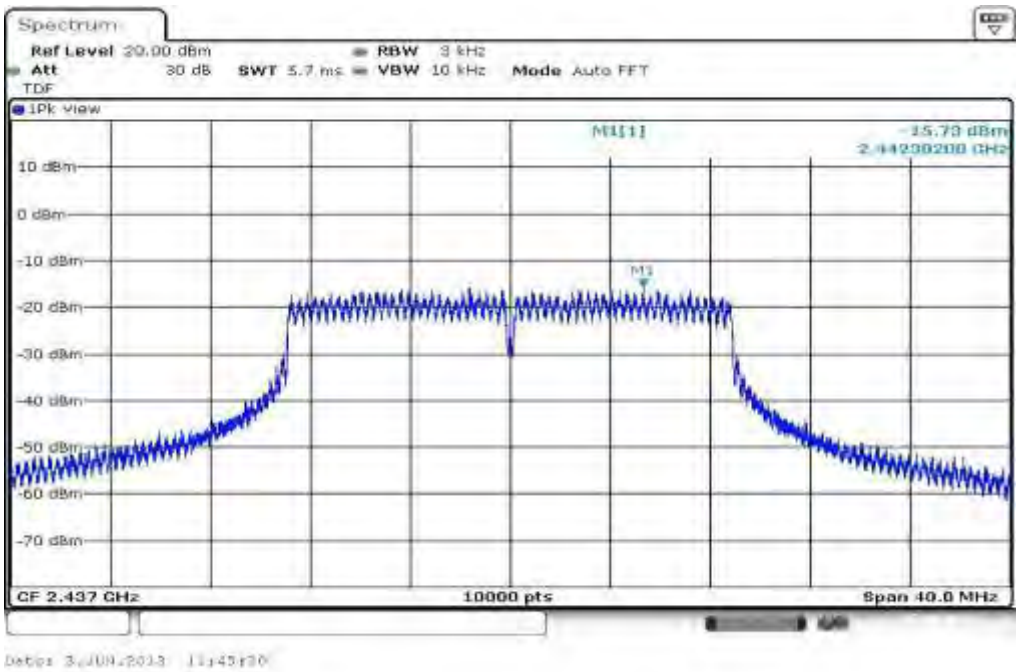


Plots: OFDM / n – mode HT20

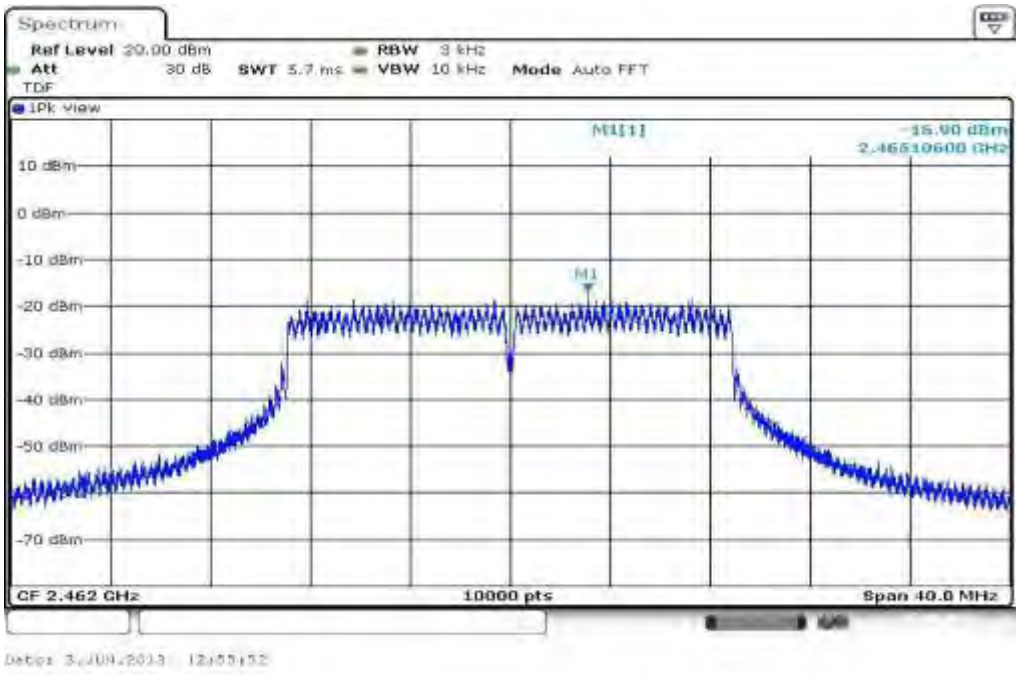
Plot 1: TX mode, lowest channel



Plot 2: TX mode, middle channel

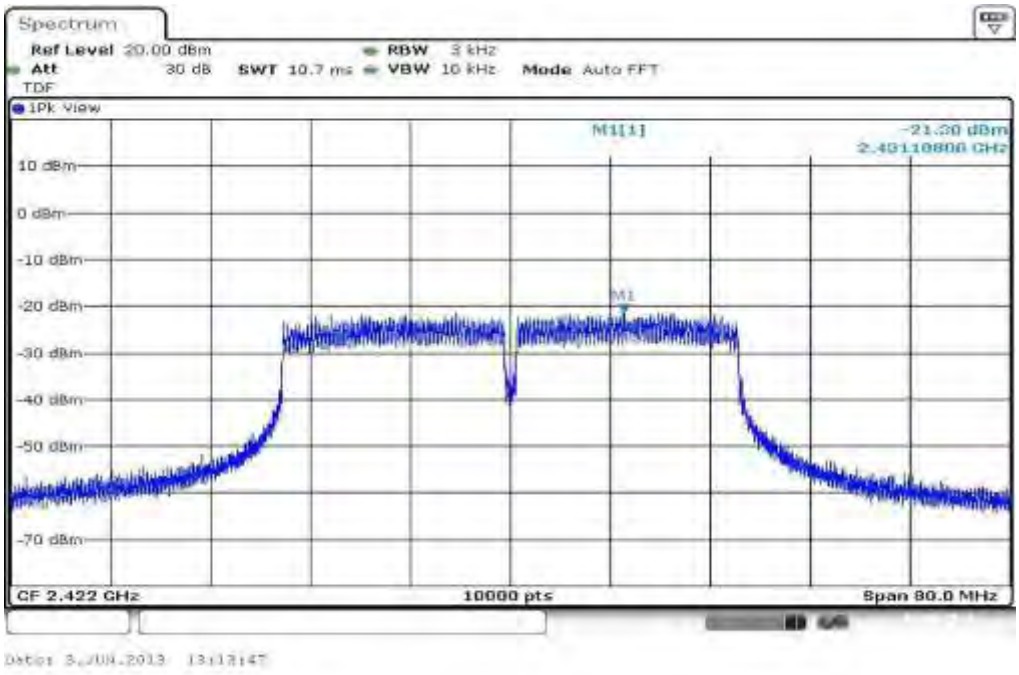


Plot 3: TX mode, highest channel

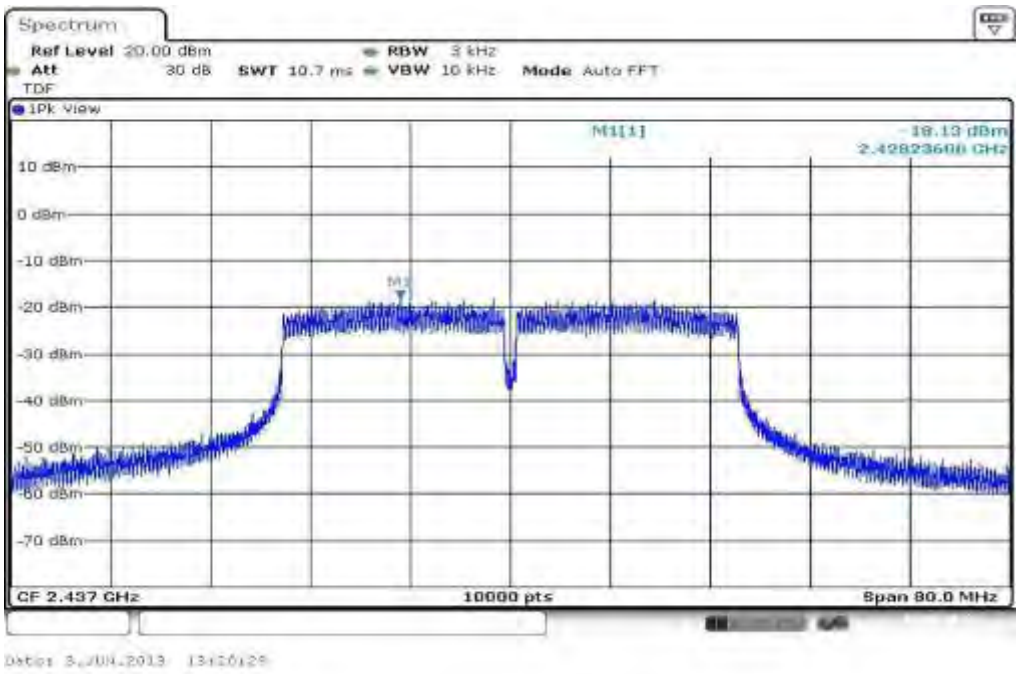


Plots: OFDM / n – mode HT40

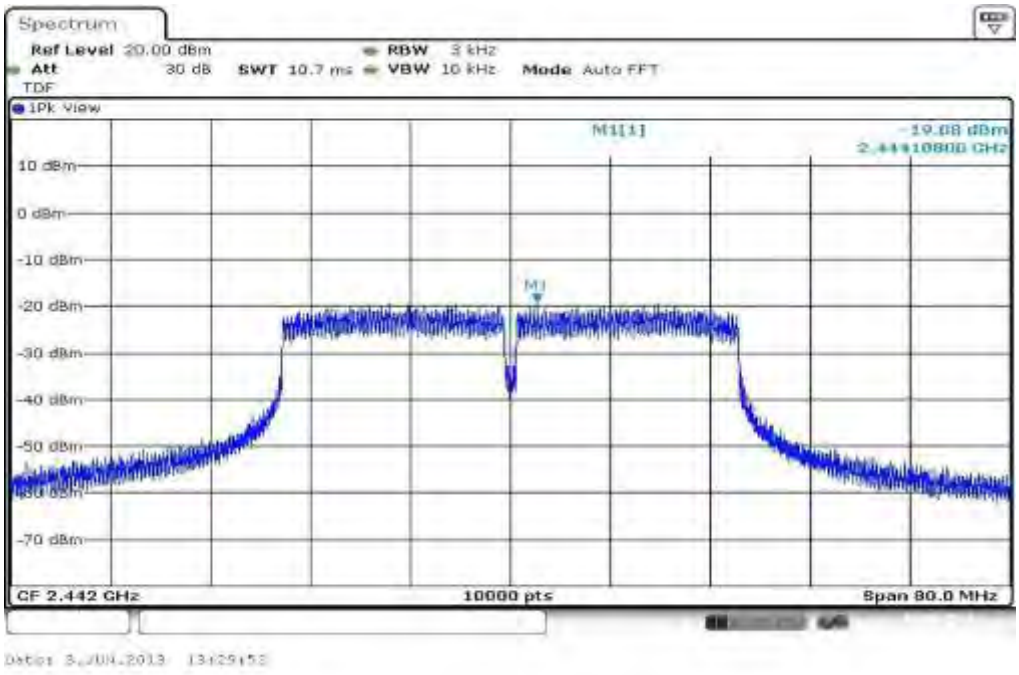
Plot 1: TX mode, lowest channel



Plot 2: TX mode, middle channel



Plot 3: TX mode, highest channel



9.4 Spectrum bandwidth – 6 dB

Description:

Measurement of the 6 dB bandwidth of the modulated signal.

Measurement:

Measurement parameter	
According to DTS clause: 8.2	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	100 kHz
Video bandwidth:	300 kHz
Span:	40 MHz
Measurement procedure:	Measurement of the 75% bandwidth using the integration function of the analyzer
Trace-Mode:	Max hold (allow trace to stabilize)

Limits:

FCC	IC
Spectrum Bandwidth – 6 dB	
Systems using digital modulation techniques may operate in the 2400–2483.5 MHz band. The minimum 6 dB bandwidth shall be at least 500 kHz.	

Results: DSSS / b – mode

Modulation	6 dB bandwidth [MHz]		
Frequency	2412 MHz	2437 MHz	2462 MHz
DSSS / b – mode	7.30	7.28	7.30
Measurement uncertainty	± RBW		

Results: OFDM / g – mode

Modulation	6 dB bandwidth [MHz]		
Frequency	2412 MHz	2437 MHz	2462 MHz
OFDM / g – mode	12.16	12.15	12.20
Measurement uncertainty	± RBW		

Result: **Passed**

Results: OFDM / n – mode HT20

Modulation	6 dB bandwidth [MHz]		
Frequency	2412 MHz	2437 MHz	2462 MHz
OFDM / n – mode HT20	12.94	12.95	12.94
Measurement uncertainty	± RBW		

Result: **Passed**

Results: OFDM / n – mode HT40

Modulation	6 dB bandwidth [MHz]		
Frequency	2422 MHz	2437 MHz	2452 MHz
OFDM / n – mode HT20	26.55	26.50	26.93
Measurement uncertainty	± RBW		

Result: **Passed**

9.5 Occupied bandwidth – 99% emission bandwidth

Description:

Measurement of the 99% bandwidth of the modulated signal acc. RSS-GEN.

Measurement:

Measurement parameter	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	500 kHz
Video bandwidth:	3 MHz
Span:	40 MHz
Measurement procedure:	Measurement of the 99% bandwidth using the integration function of the analyzer
Trace-Mode:	Max hold (allow trace to stabilize)

Usage:

-/-	IC
Occupied Bandwidth – 99% emission bandwidth	
OBW is necessary for Emission Designator	

Results:

Modulation Frequency	20 dB bandwidth [MHz]		
	Lowest channel	Middle channel	Highest channel
DSSS / b – mode	14.09	14.11	14.12
OFDM / g – mode	17.57	17.60	17.59
OFDM / n – mode HT20	18.59	18.52	18.48
OFDM / n – mode HT40	37.24	37.46	37.74
Measurement uncertainty	± RBW		

Result: Passed

9.6 Band edge compliance conducted

Description:

Measurement of the conducted band edge compliance. EUT is measured at the lower and upper band edge in both modes.

Measurement:

Measurement parameter	
According to DTS clause: 13.2.1	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	100 kHz
Video bandwidth:	500 kHz
Span:	Lower Band Edge: 2300 – 2425 MHz Upper Band Edge: 2450 – 2550 MHz
Trace-Mode:	Max hold

Limits:

FCC	IC
Band Edge Compliance Conducted	
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required.	

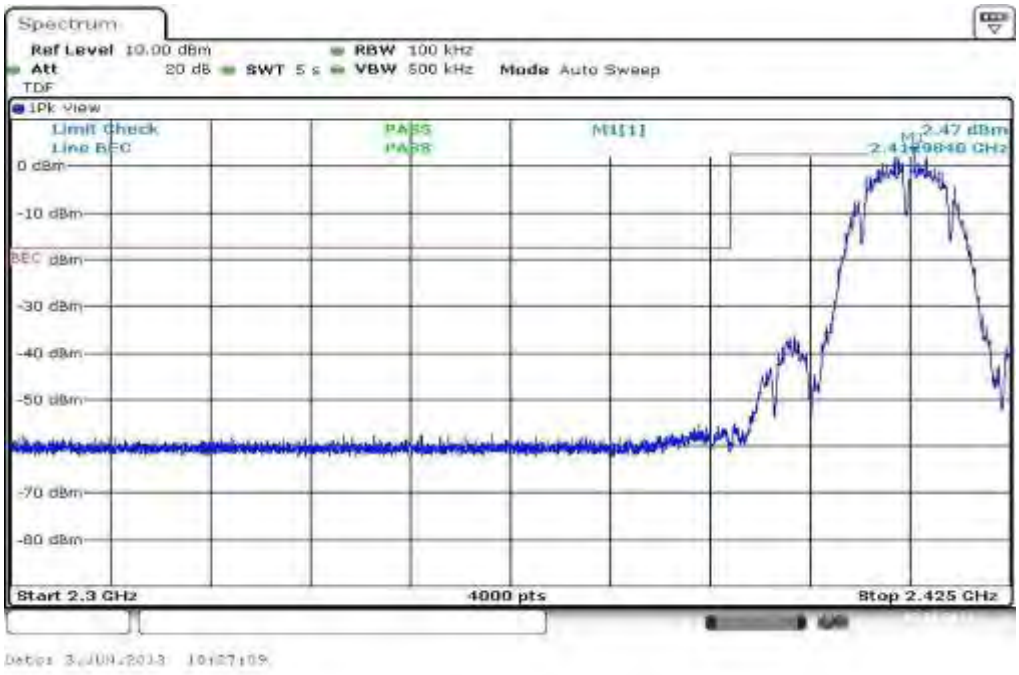
Results:

Scenario	Band Edge Compliance Conducted [dB]		
Modulation	DSSS / b – mode	OFDM / g – mode	OFDM / n – mode
Lower Band Edge – Channel 1	> 20 dB	> 20 dB	> 20 dB
Upper Band Edge – Channel 11	> 20 dB	> 20 dB	> 20 dB
Measurement uncertainty	± 1.5 dB		

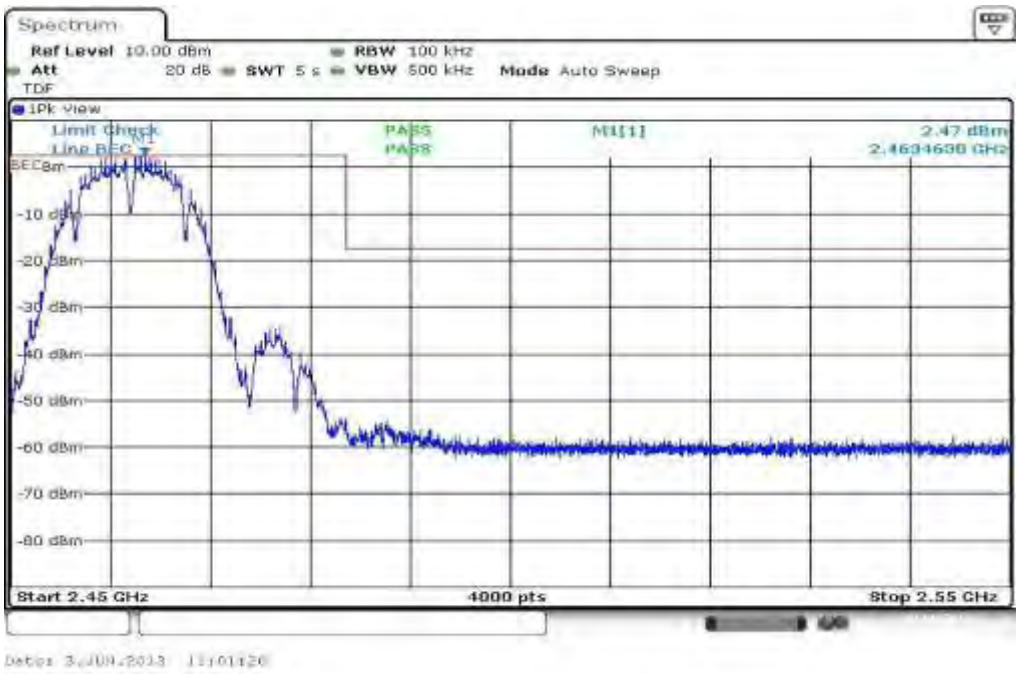
Result: Passed

Plots: DSSS / b – mode

Plot 1: TX mode, lower band edge

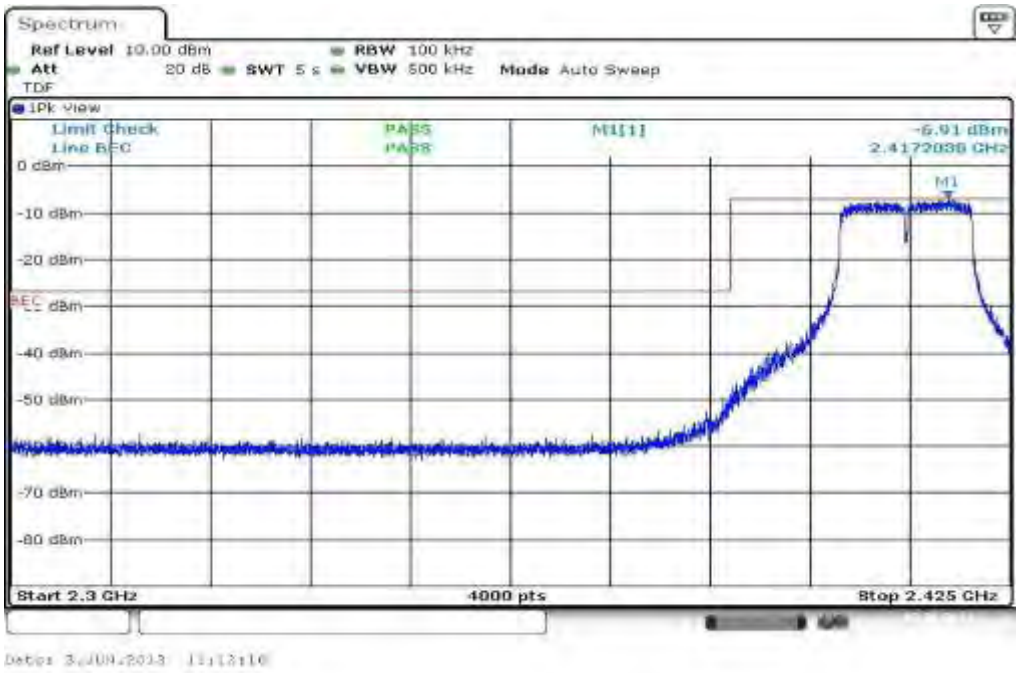


Plot 2: TX mode, upper band edge

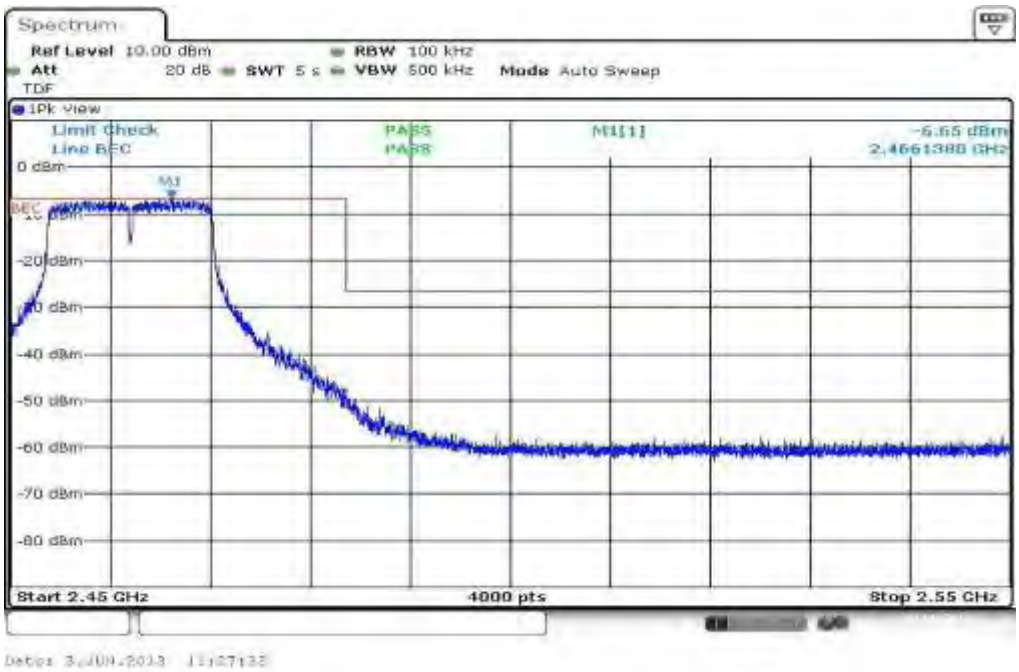


Plots: OFDM / g – mode

Plot 1: TX mode, lower band edge

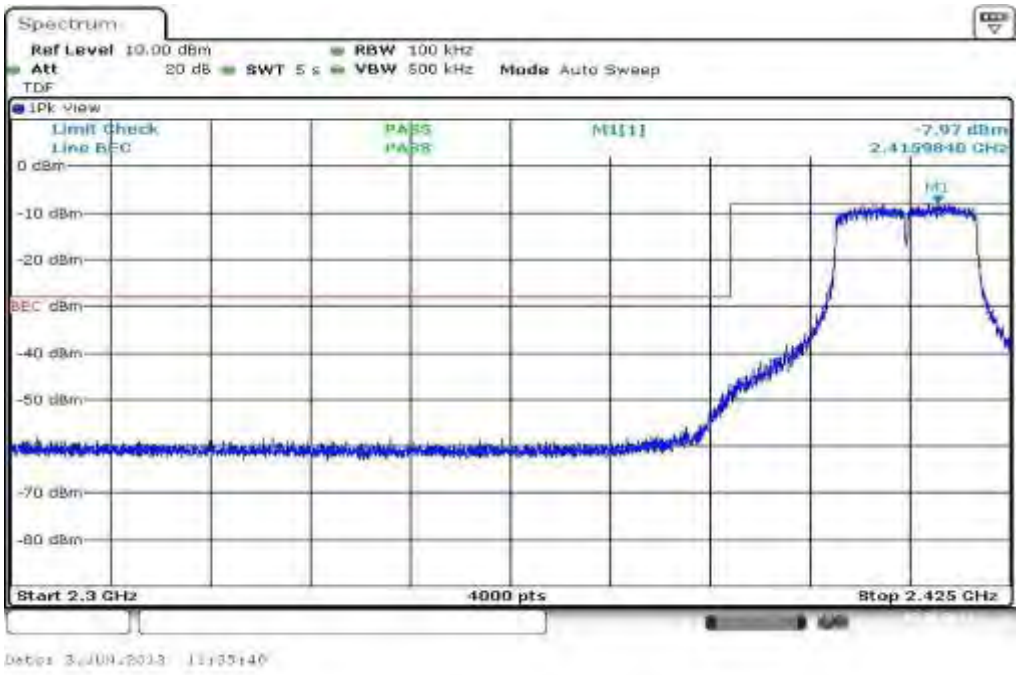


Plot 2: TX mode, upper band edge

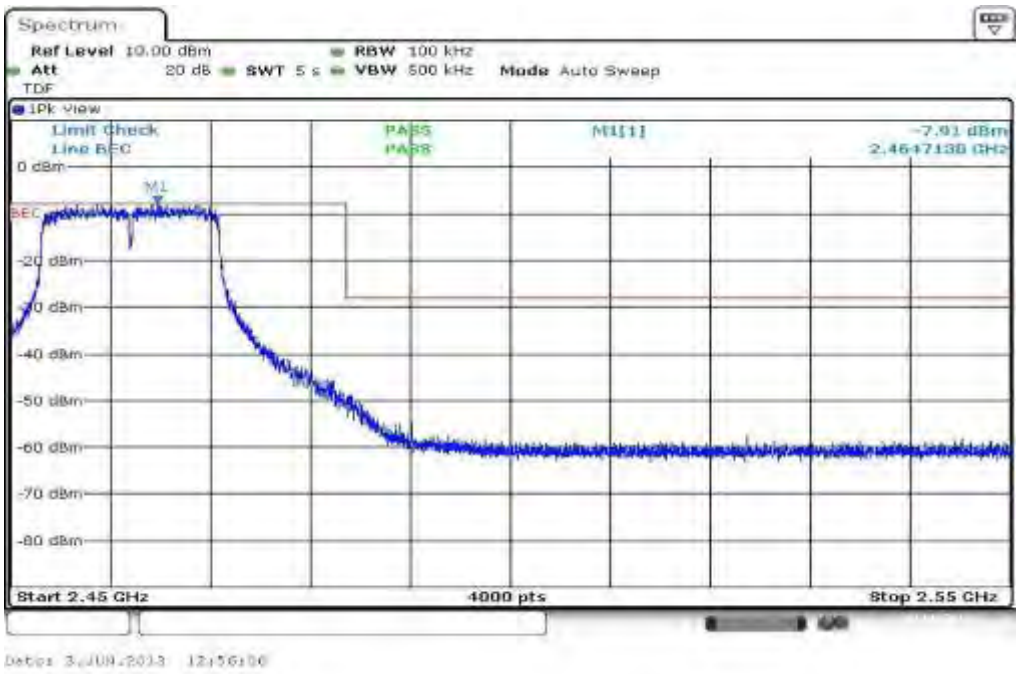


Plots: OFDM / n – mode HT20

Plot 1: TX mode, lower band edge



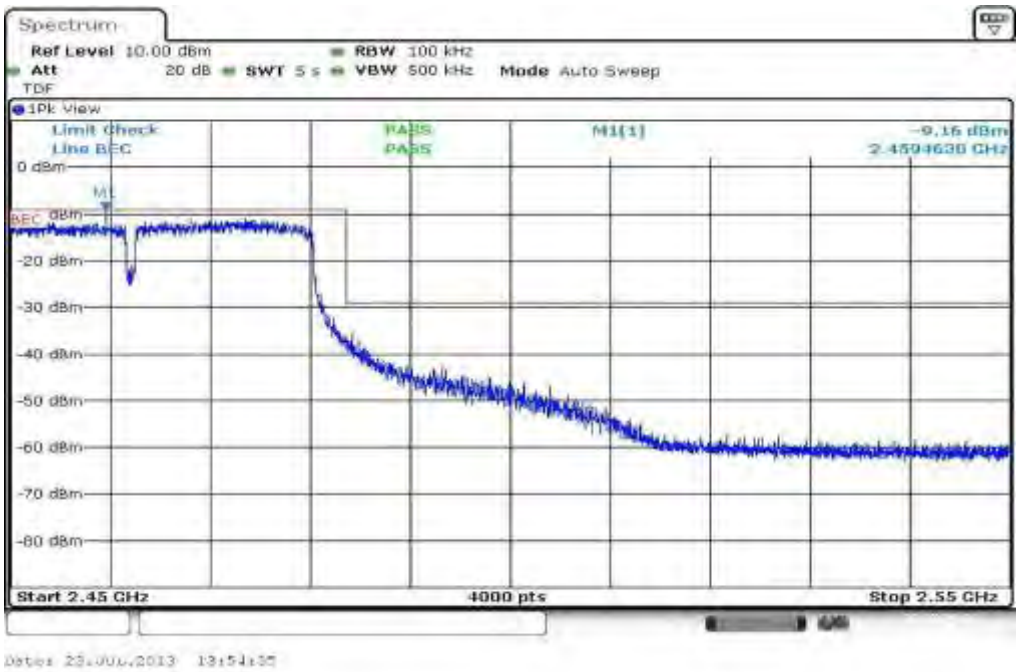
Plot 2: TX mode, upper band edge



Plots: OFDM / n – mode HT40

Plot 1: TX mode, lower band edge

Plot 2: TX mode, upper band edge



9.7 Band edge compliance radiated

Description:

Measurement of the radiated band edge compliance. The EUT is turned in the position that results in the maximum level at the band edge. Then a sweep over the corresponding restricted band is performed. The EUT is set to channel 1 for the lower restricted band and to channel 11 for the upper restricted band. The measurement is repeated for all modulations. Measurement distance is 3m.

Measurement:

Measurement parameter	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	1 MHz / 1 MHz
Video bandwidth:	1 MHz / 10 Hz
Span:	See plot!
Trace-Mode:	Max Hold

Limits:

FCC	IC
Band Edge Compliance Radiated	
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 5.205(c)).	
54 dBµV/m AVG	

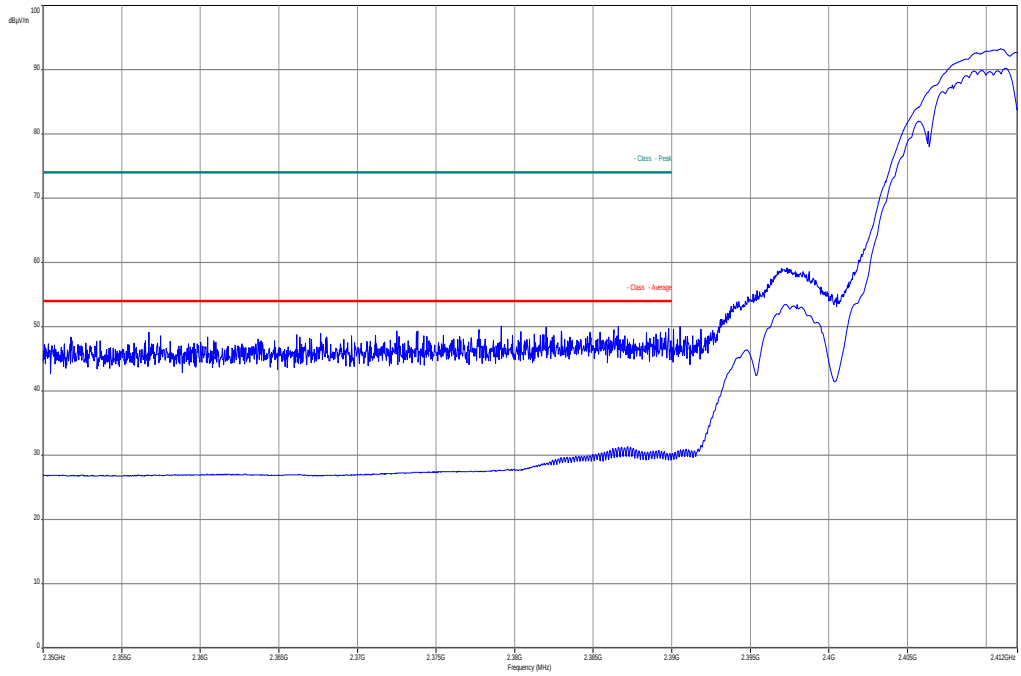
Results:

Scenario	Band Edge Compliance Conducted [dB]		
Modulation	DSSS / b – mode	OFDM / g – mode	OFDM / n – mode
Lower Band Edge – Channel 1	> 20 dB (Peak) > 20 dB (AVG)	> 10 dB (Peak) > 20 dB (AVG)	> 10 dB (Peak) > 20 dB (AVG)
Upper Band Edge – Channel 11	> 20 dB (Peak) > 20 dB (AVG)	> 10 dB (Peak) > 20 dB (AVG)	> 10 dB (Peak) > 20 dB (AVG)
Measurement uncertainty	± 3 dB		

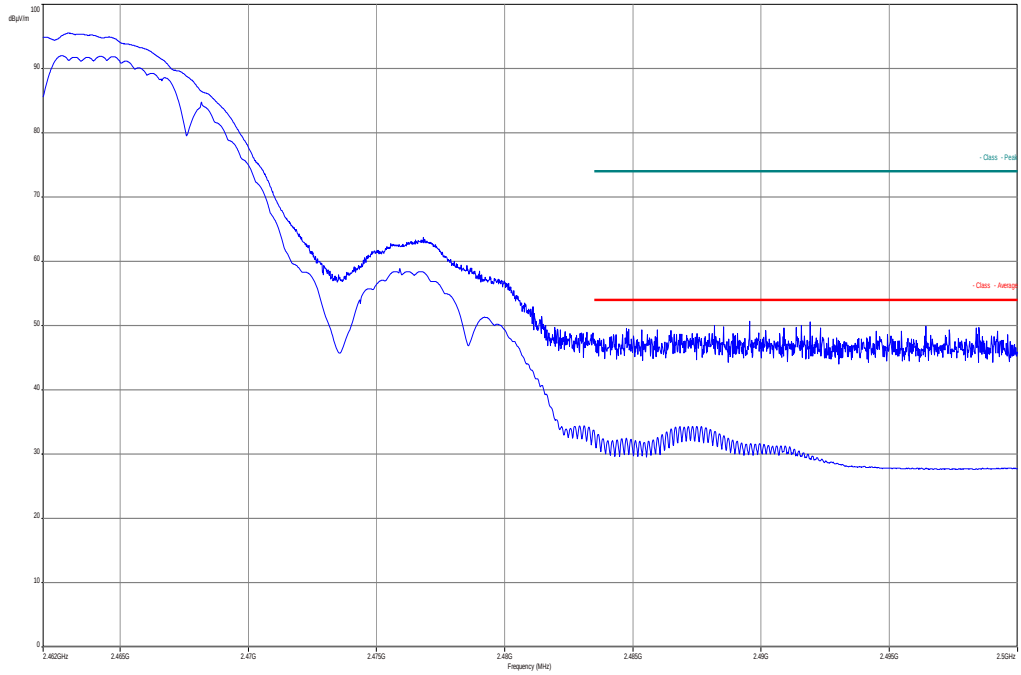
Result: Passed

Plots: DSSS/ b – mode peak / average (ANT M3002-66494)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

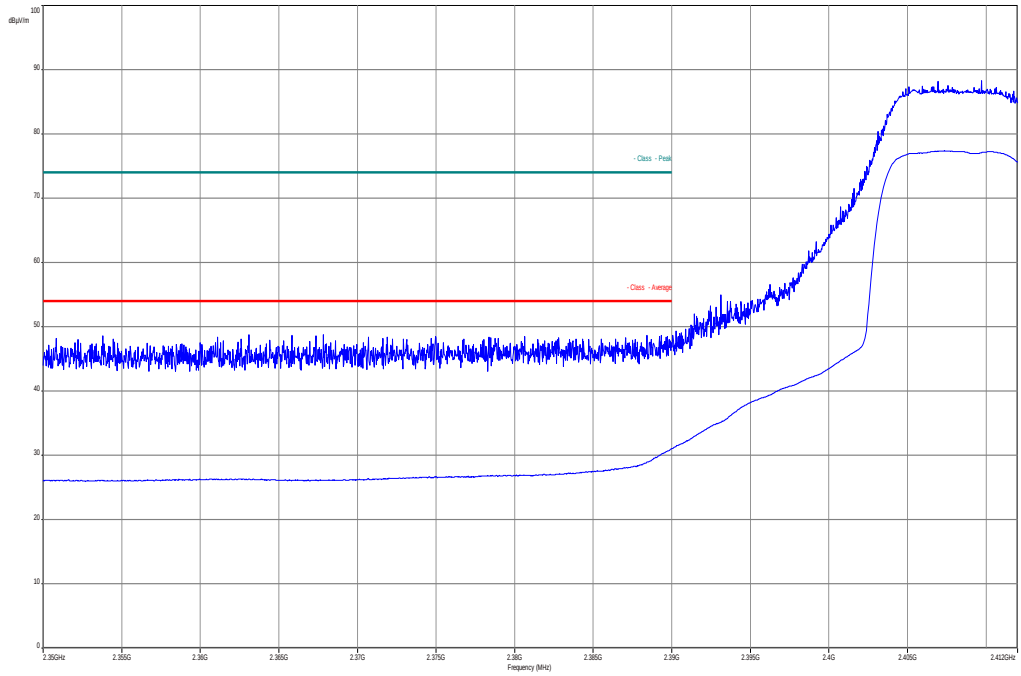


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

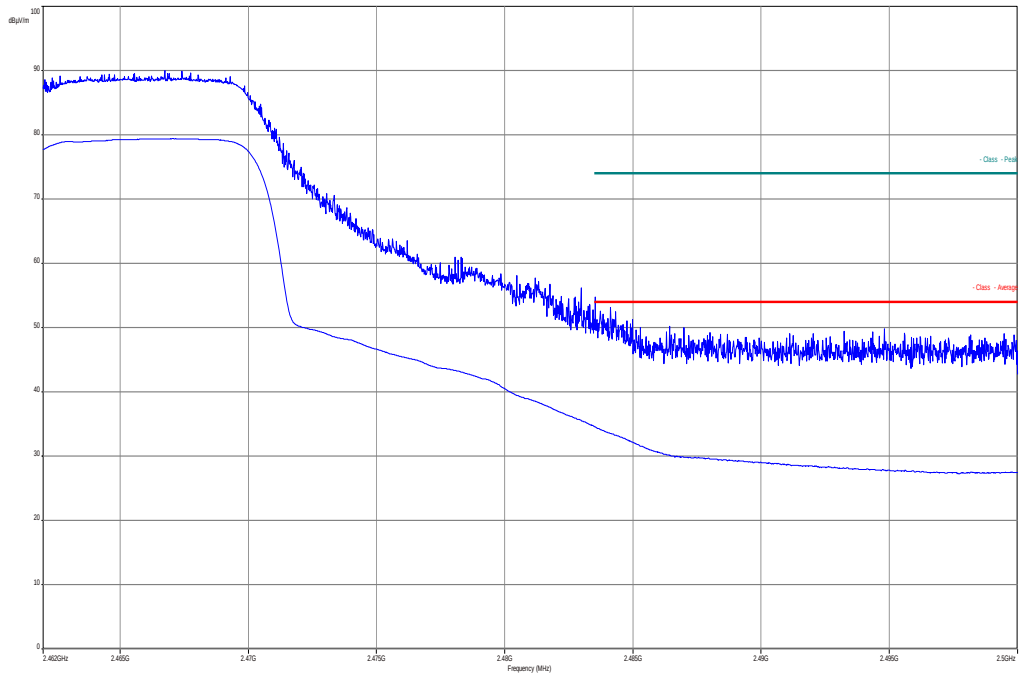


Plots: OFDM / g – mode peak / average (ANT M3002-66494)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

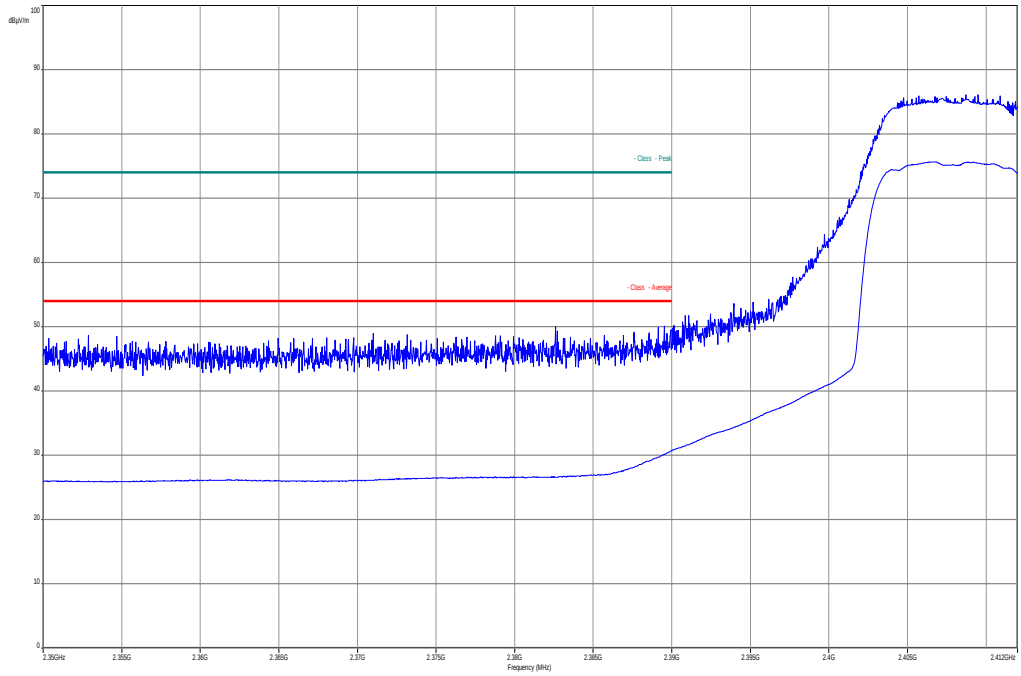


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

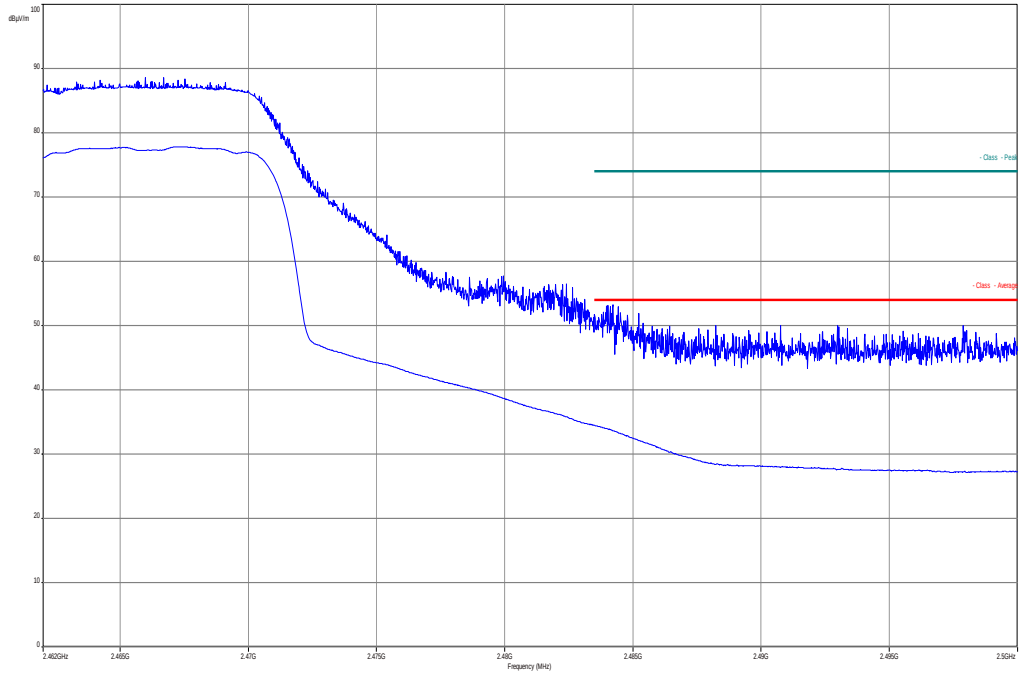


Plots: OFDM / n – mode HT20 - peak / average (ANT M3002-66494)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

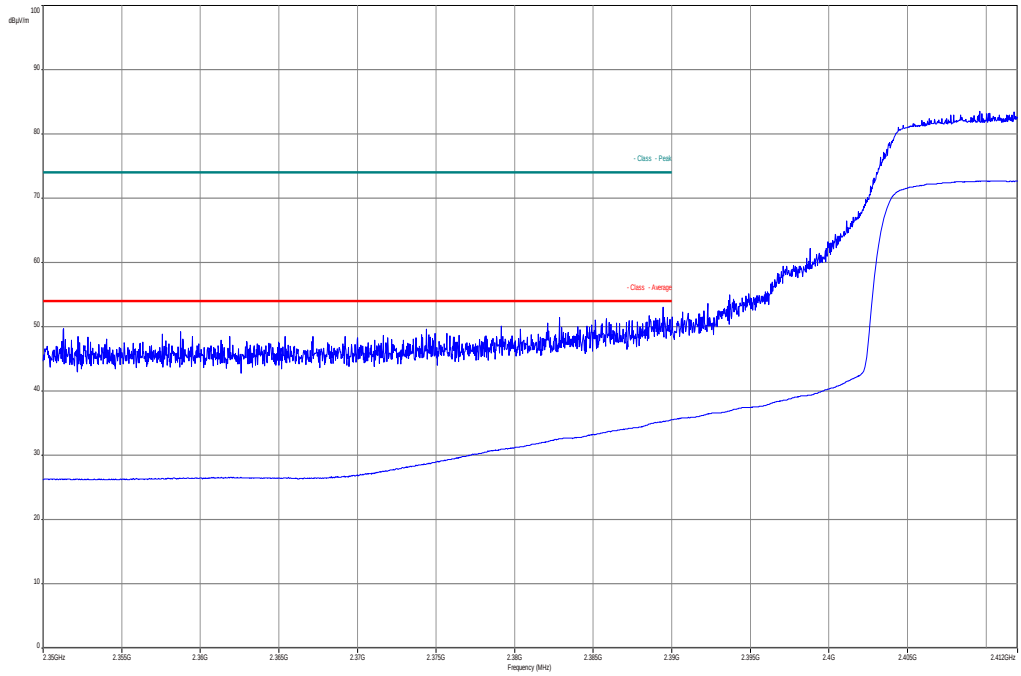


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

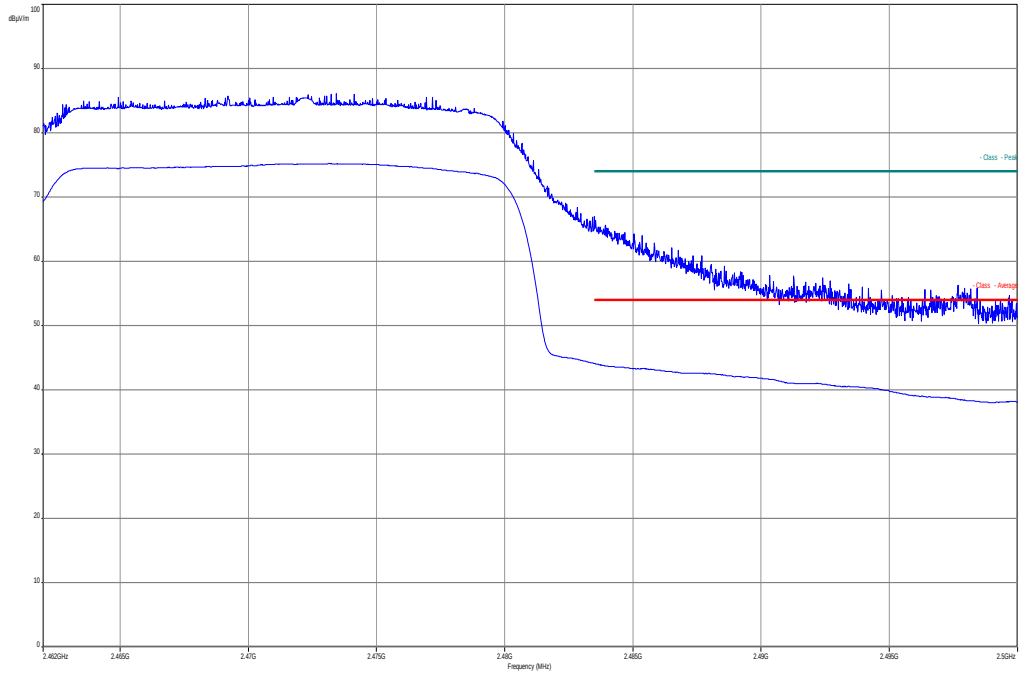


Plots: OFDM / n – mode HT40 - peak / average (ANT M3002-66494)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

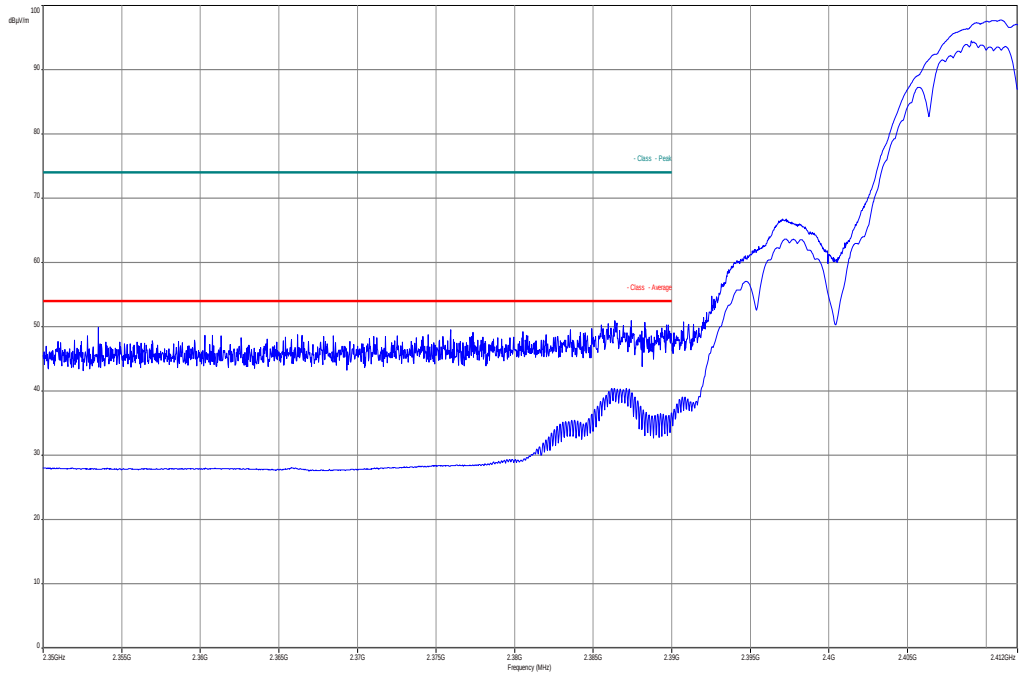


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

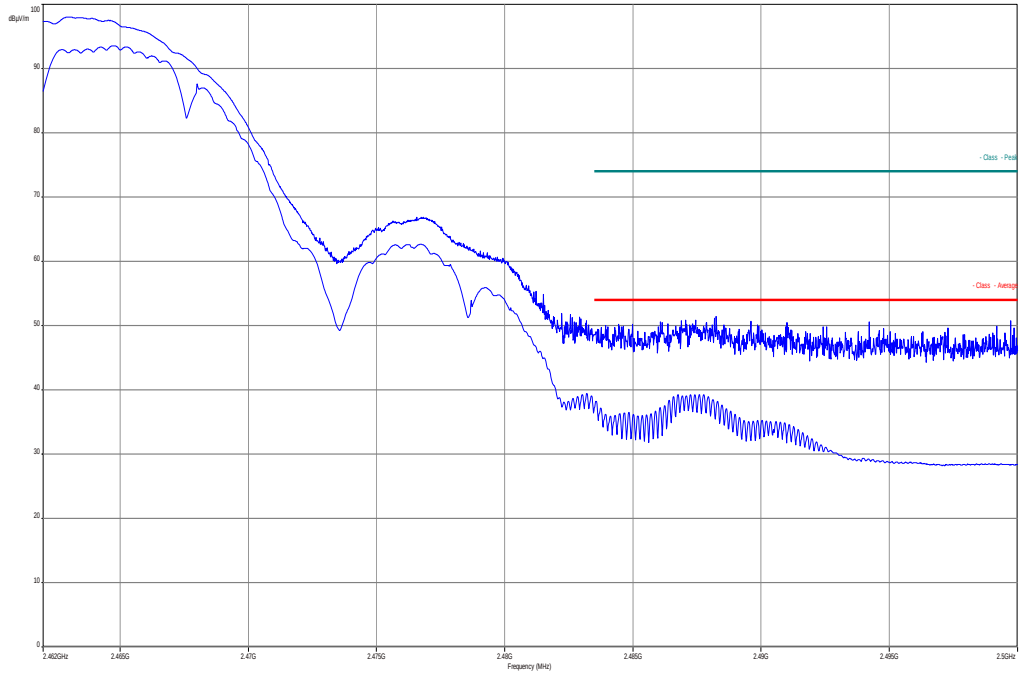


Plots: DSSS/ b – mode peak / average (ANT 453564154611)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

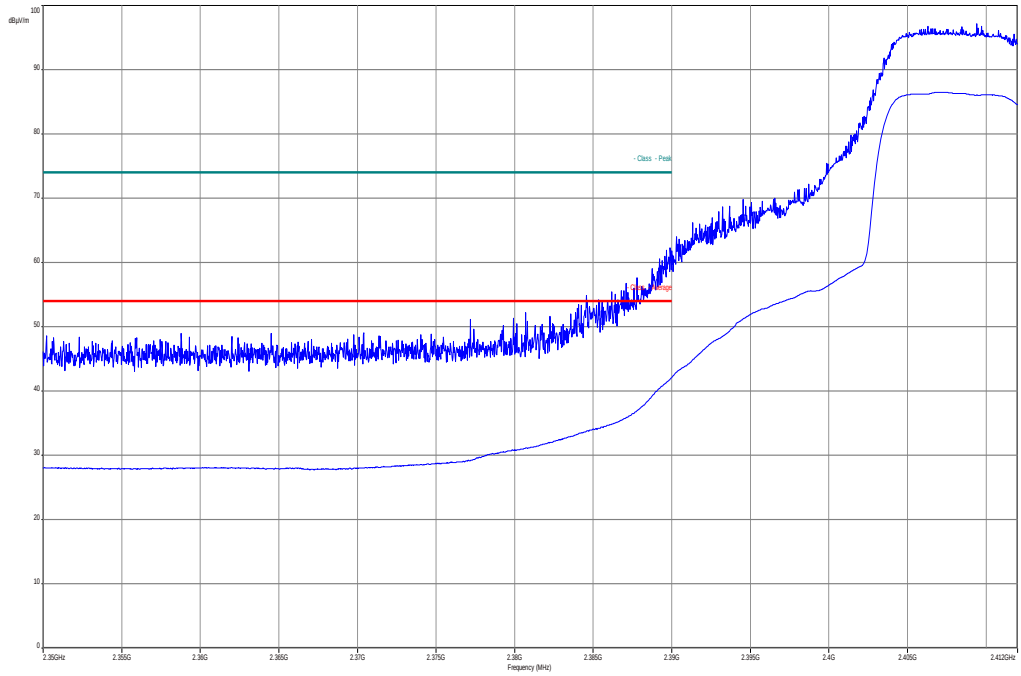


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

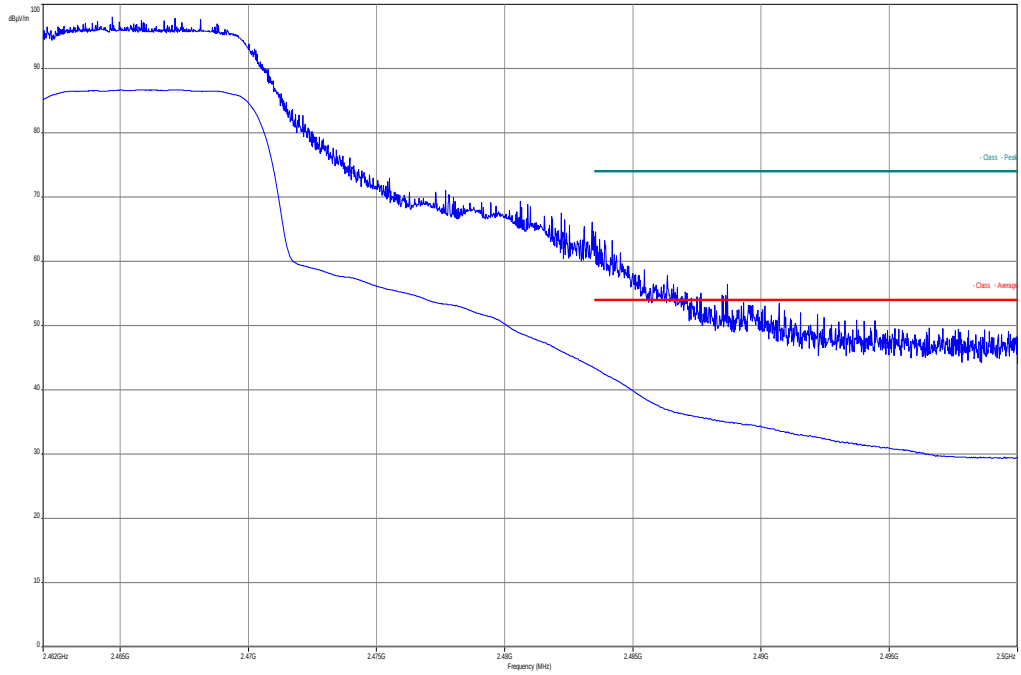


Plots: OFDM / g – mode peak / average (ANT 453564154611)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

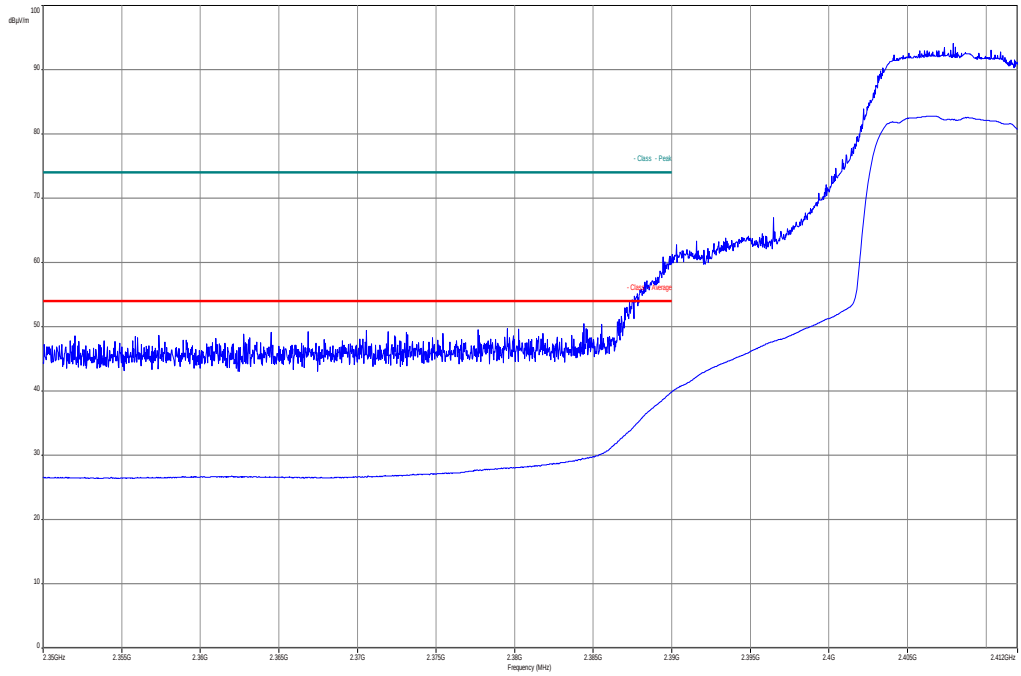


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

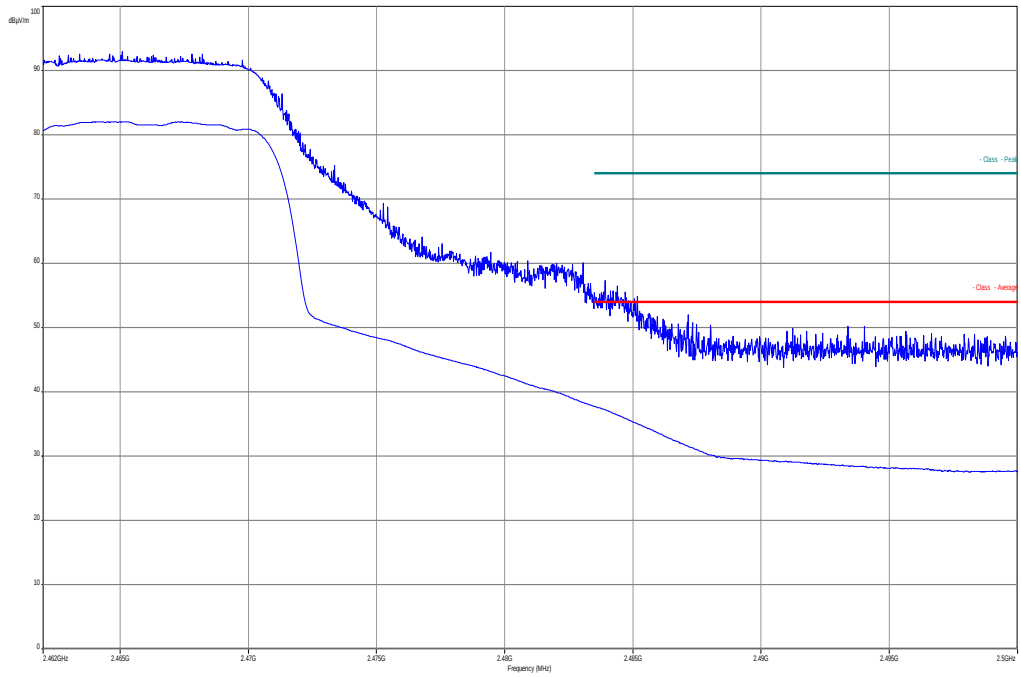


Plots: OFDM / n – mode HT20 - peak / average (ANT 453564154611)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

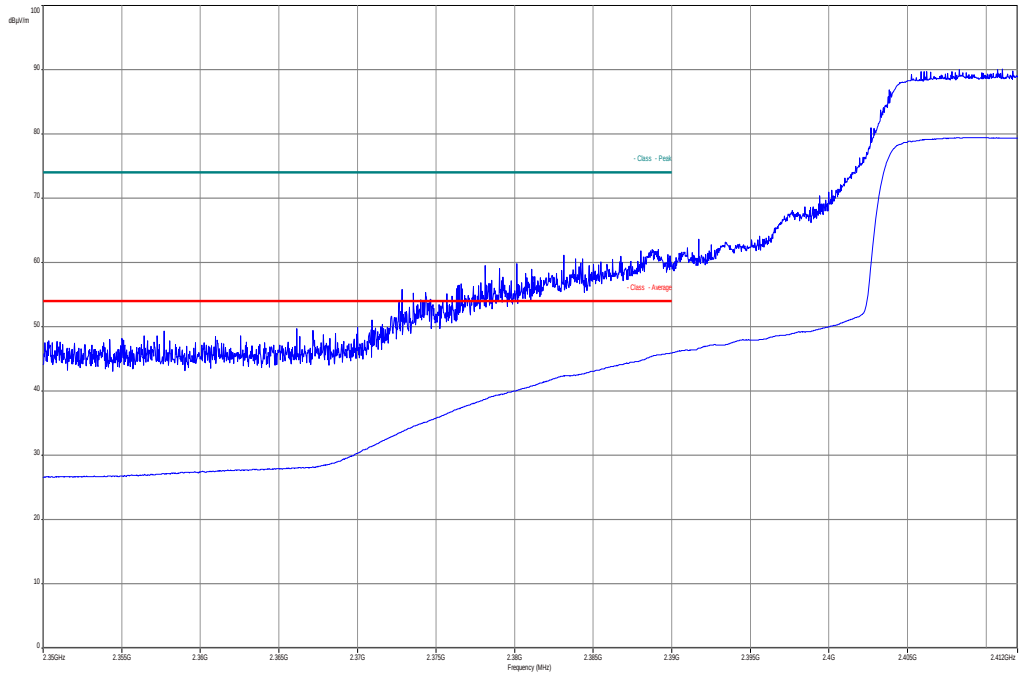


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

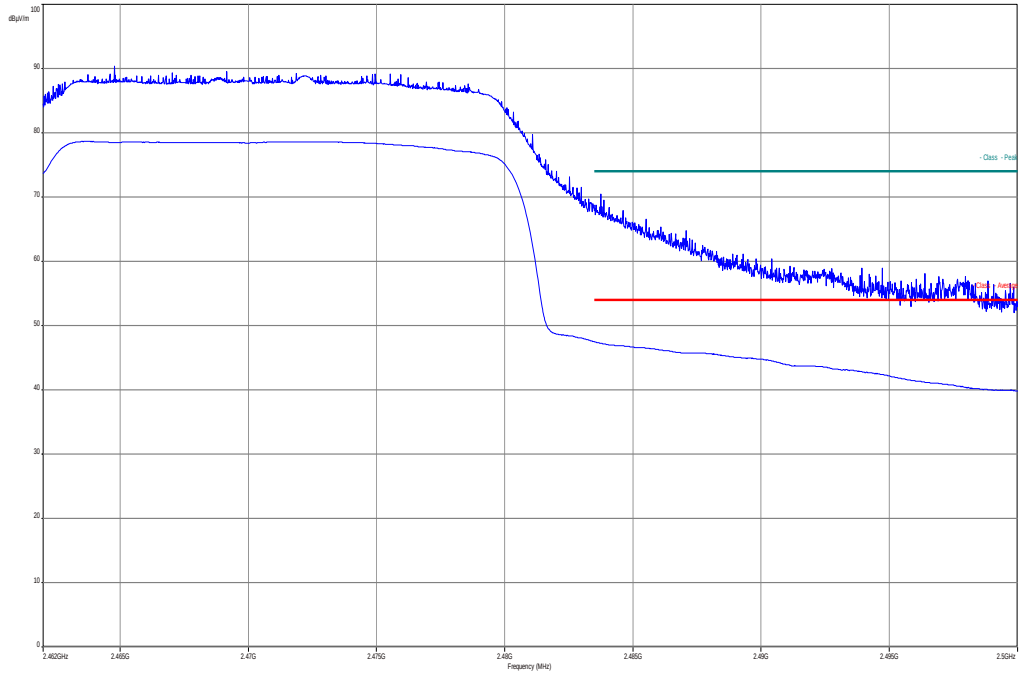


Plots: OFDM / n – mode HT40 - peak / average (ANT 453564154611)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

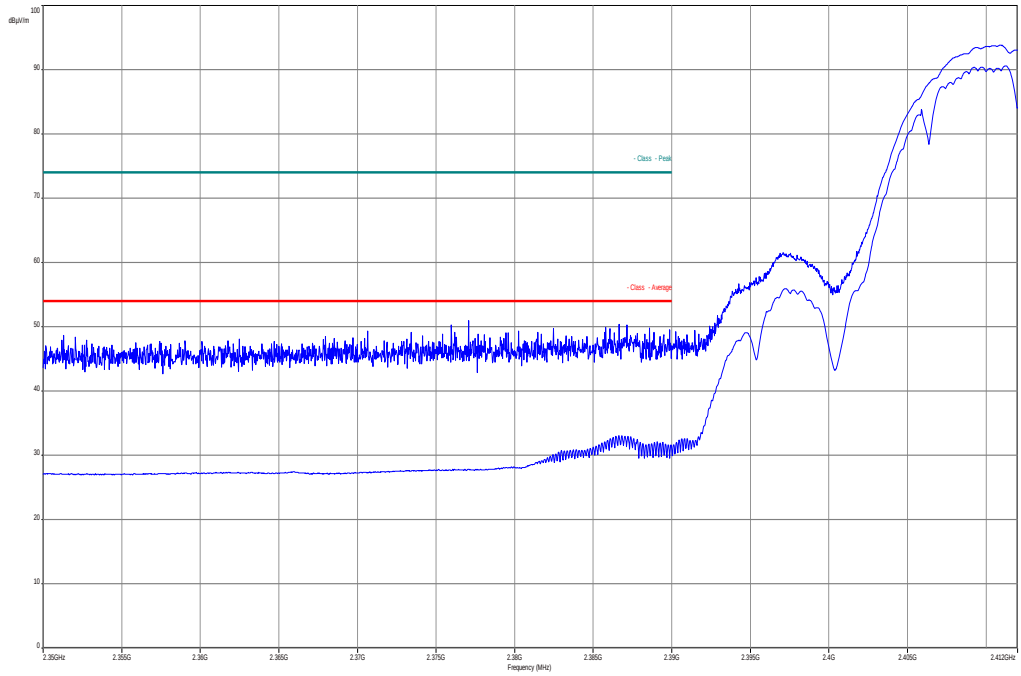


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

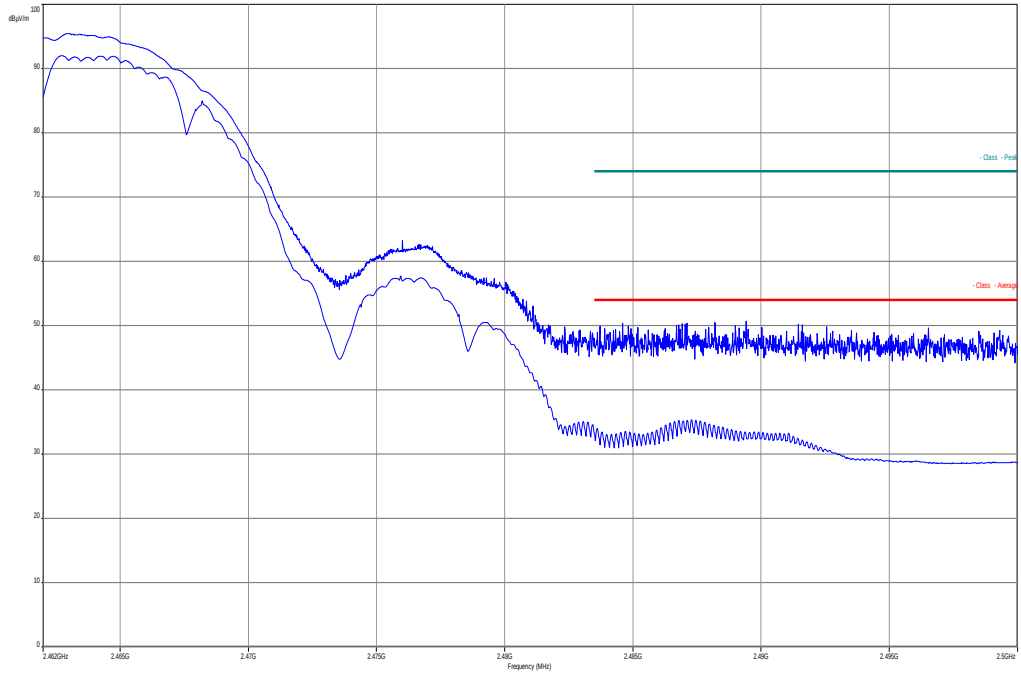


Plots: DSSS/ b – mode peak / average (ANT 453564175981)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

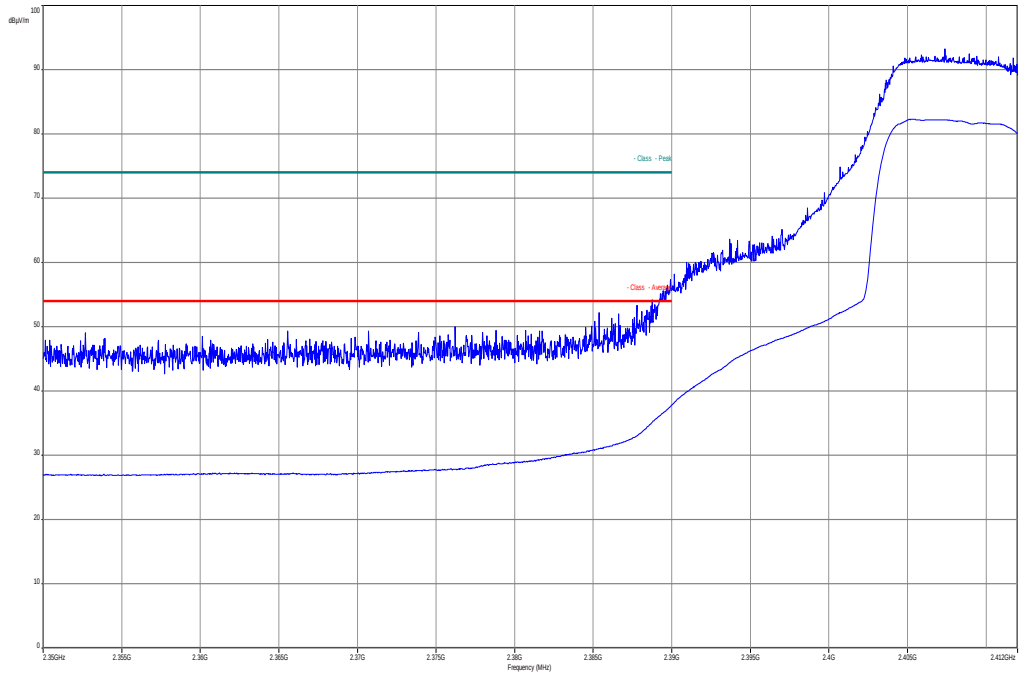


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

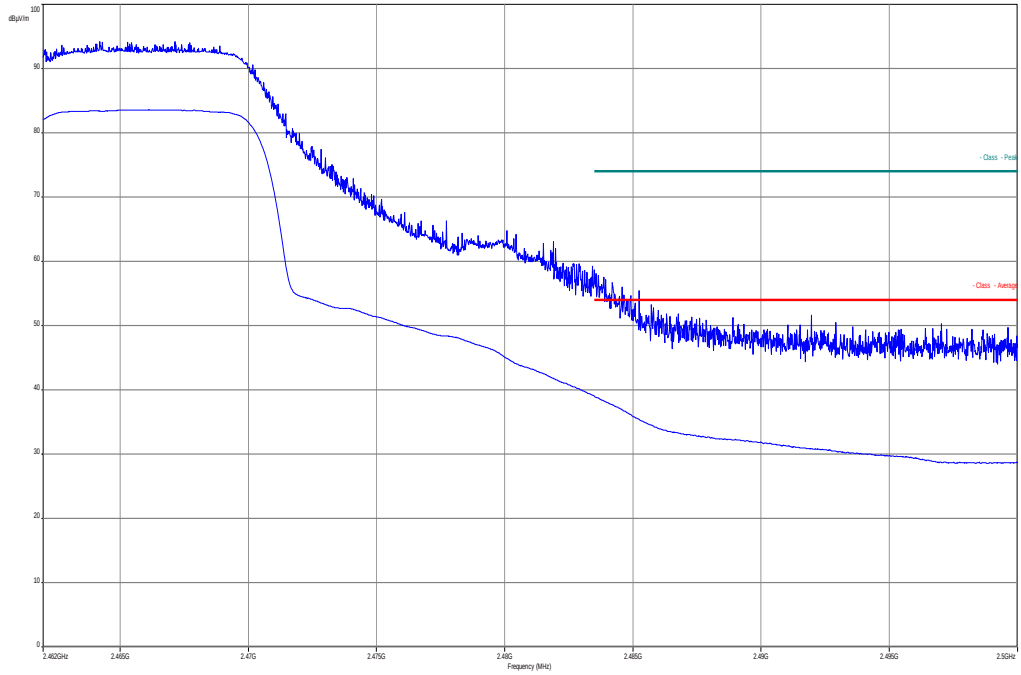


Plots: OFDM / g – mode peak / average (ANT 453564175981)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

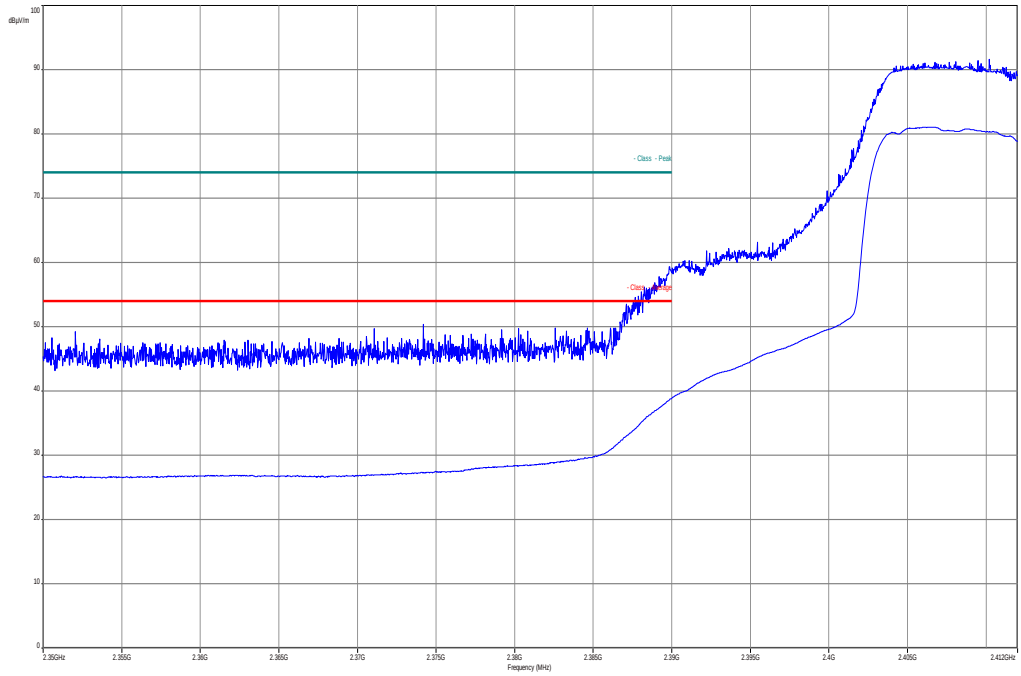


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

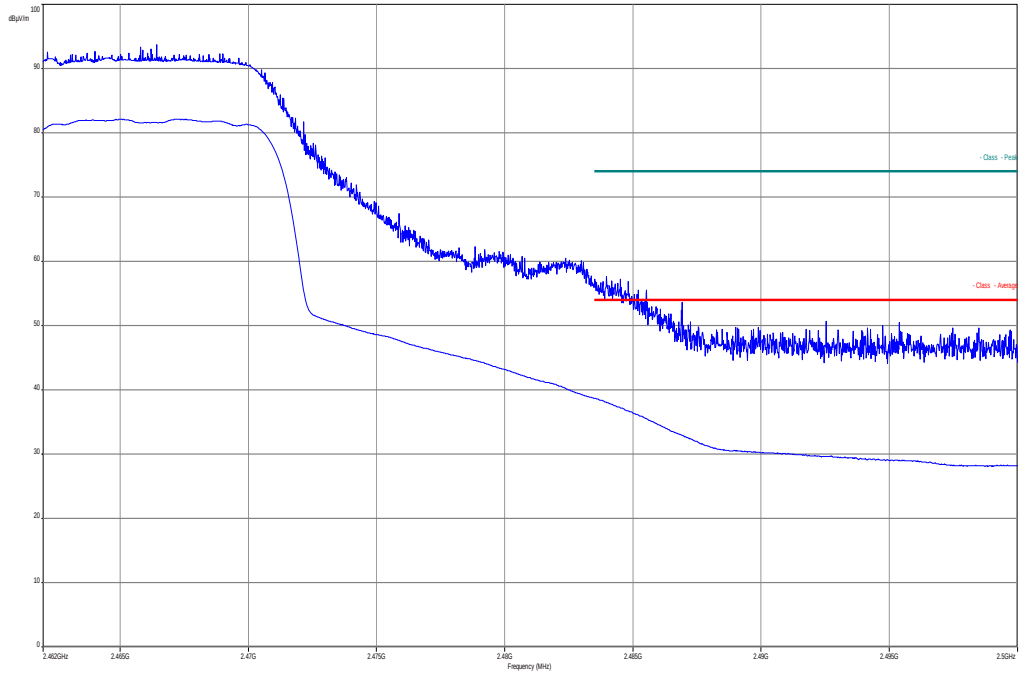


Plots: OFDM / n – mode HT20 - peak / average (ANT 453564175981)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

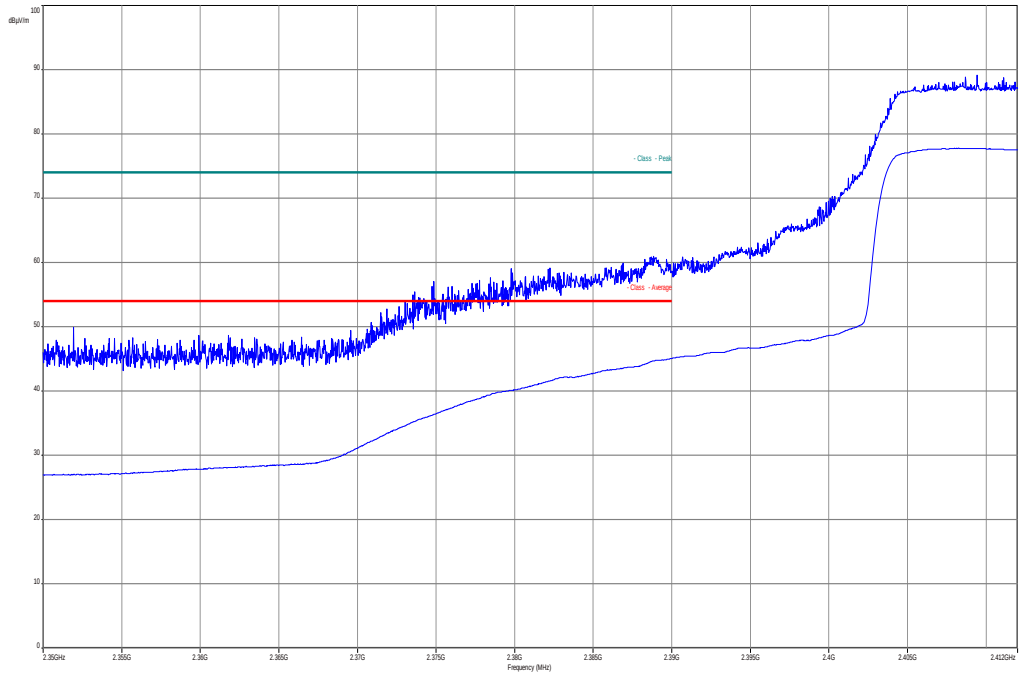


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

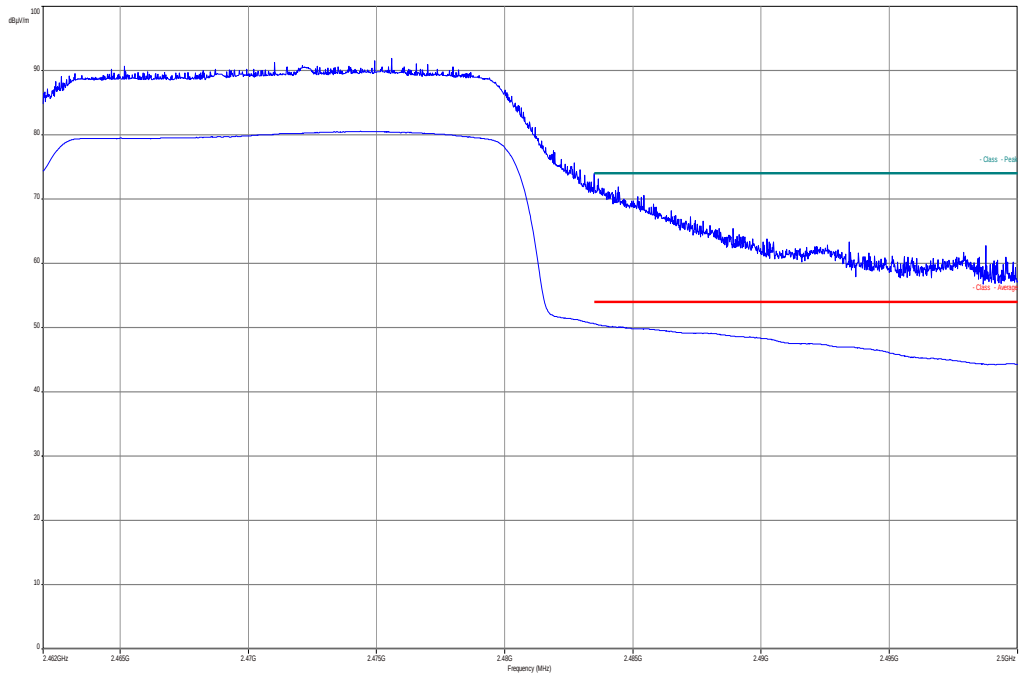


Plots: OFDM / n – mode HT40 - peak / average (ANT 453564175981)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

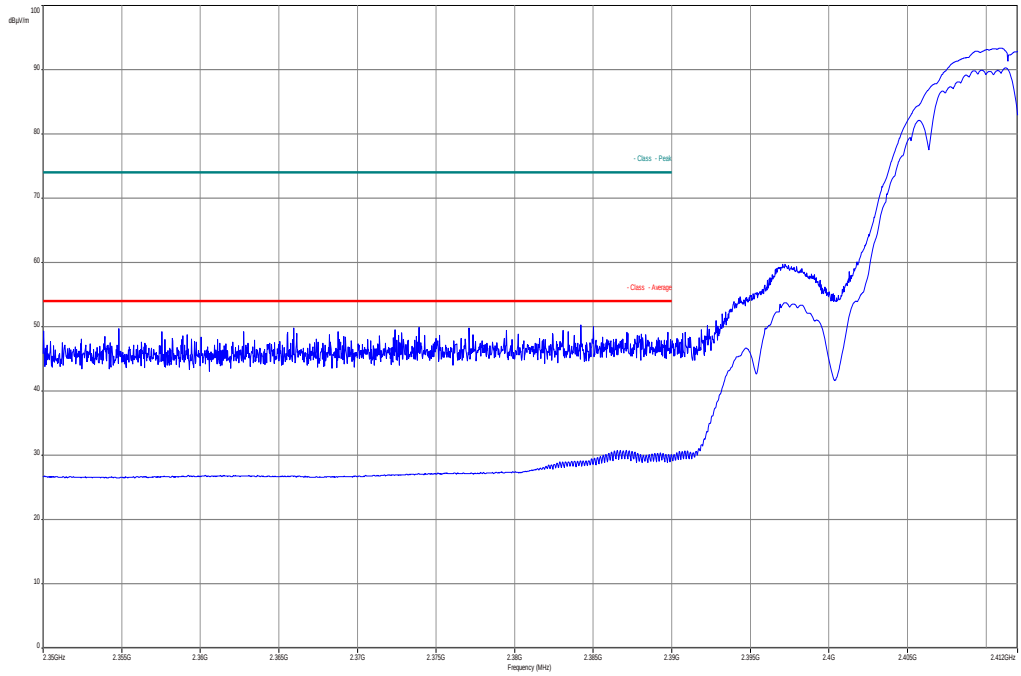


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

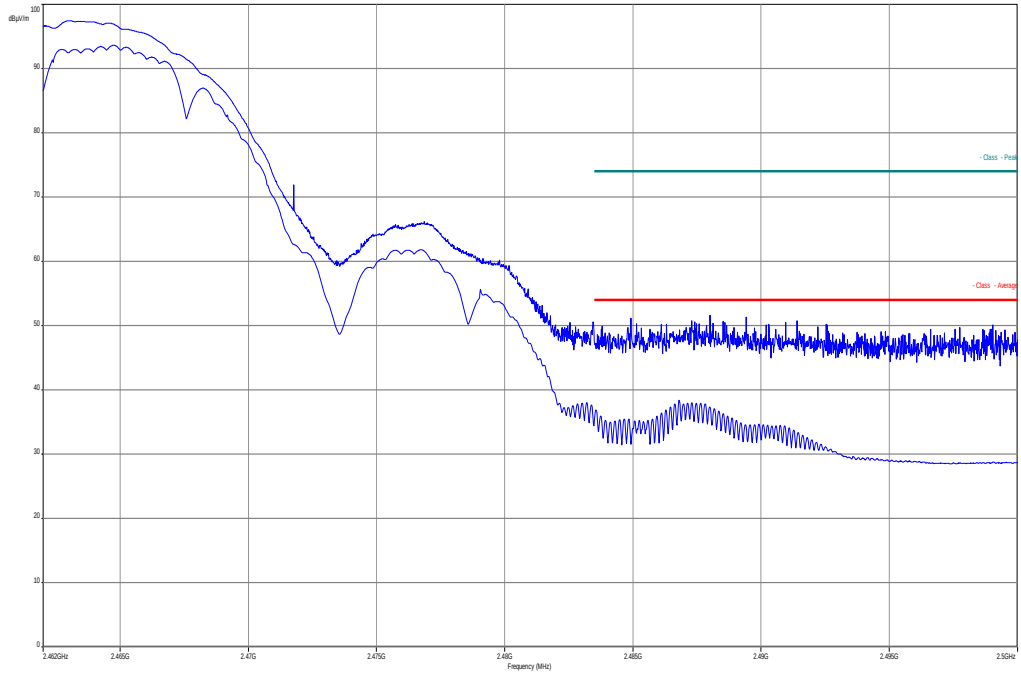


Plots: DSSS/ b – mode peak / average (ANT 453564271931)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

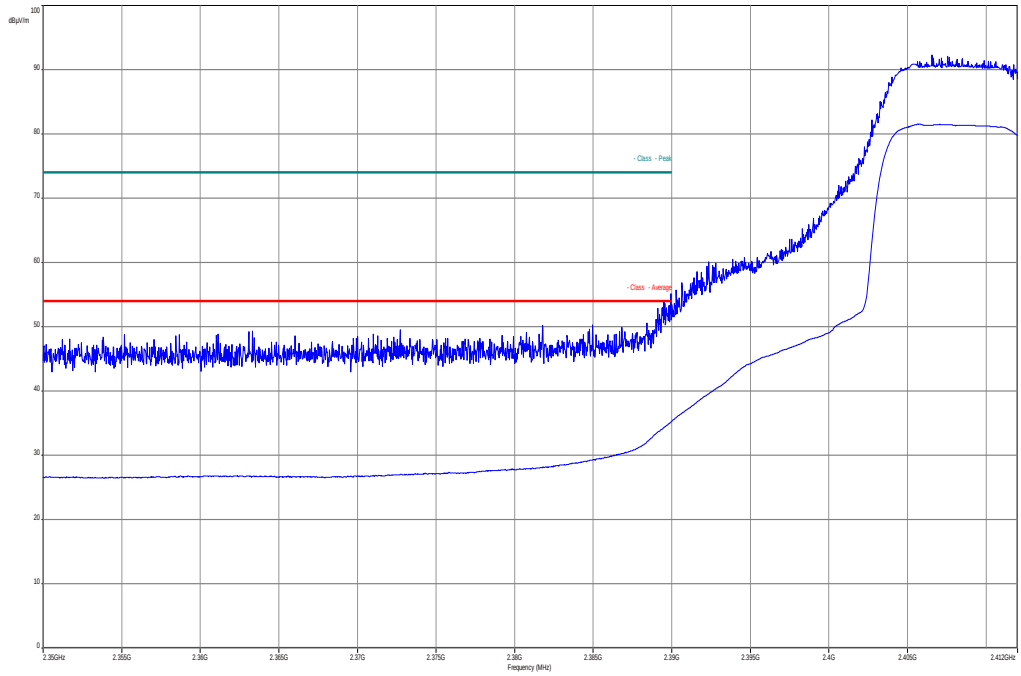


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

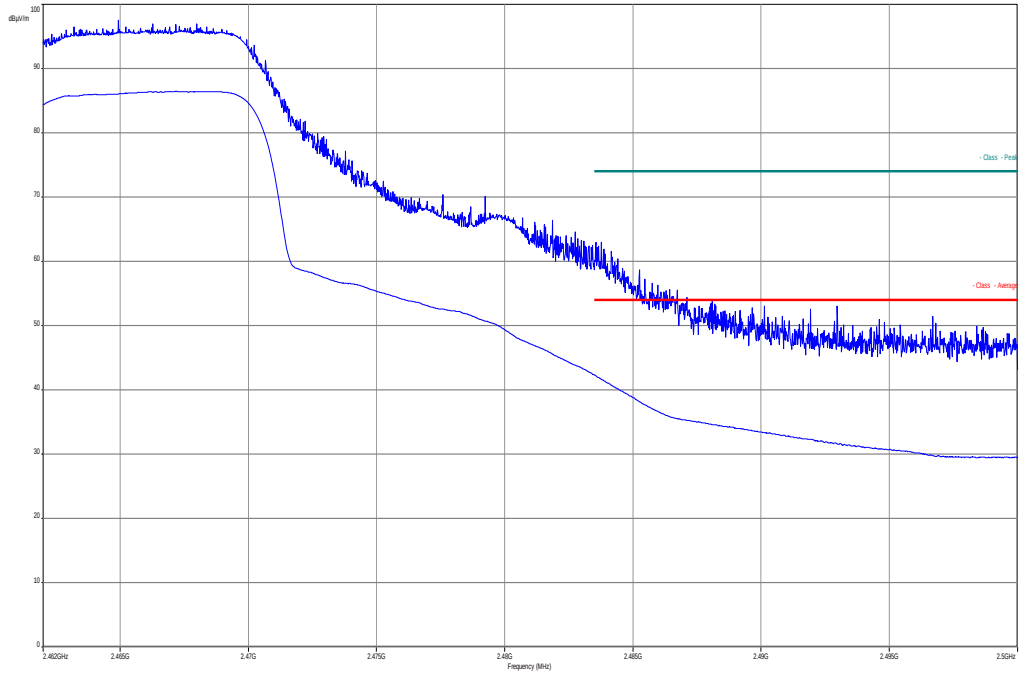


Plots: OFDM / g – mode peak / average (ANT 453564271931)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

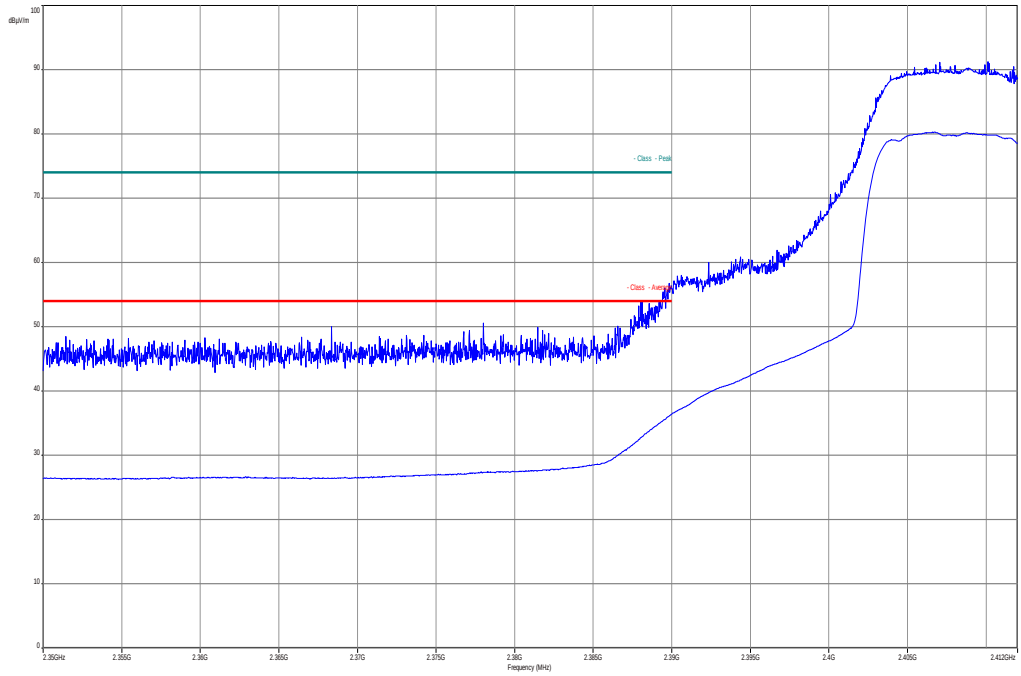


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

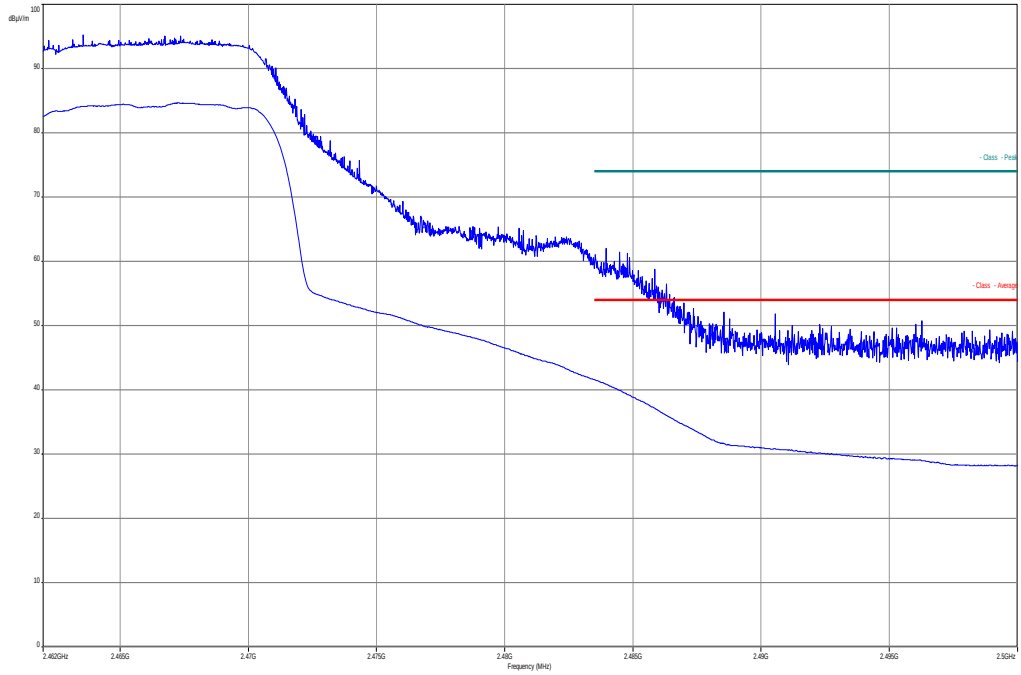


Plots: OFDM / n – mode HT20 - peak / average (ANT 453564271931)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

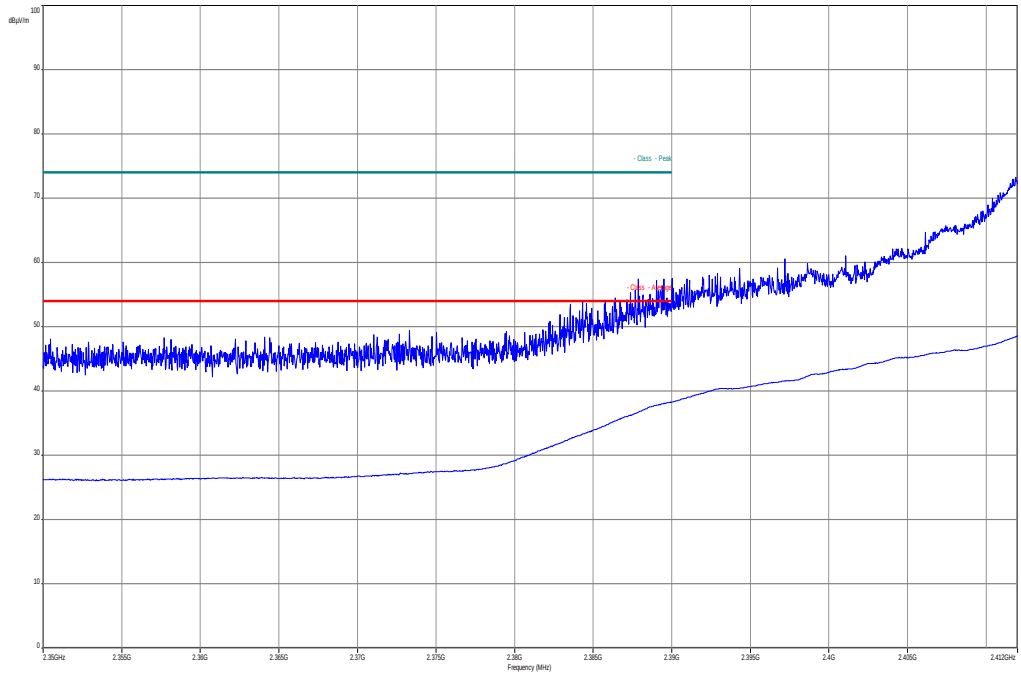


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

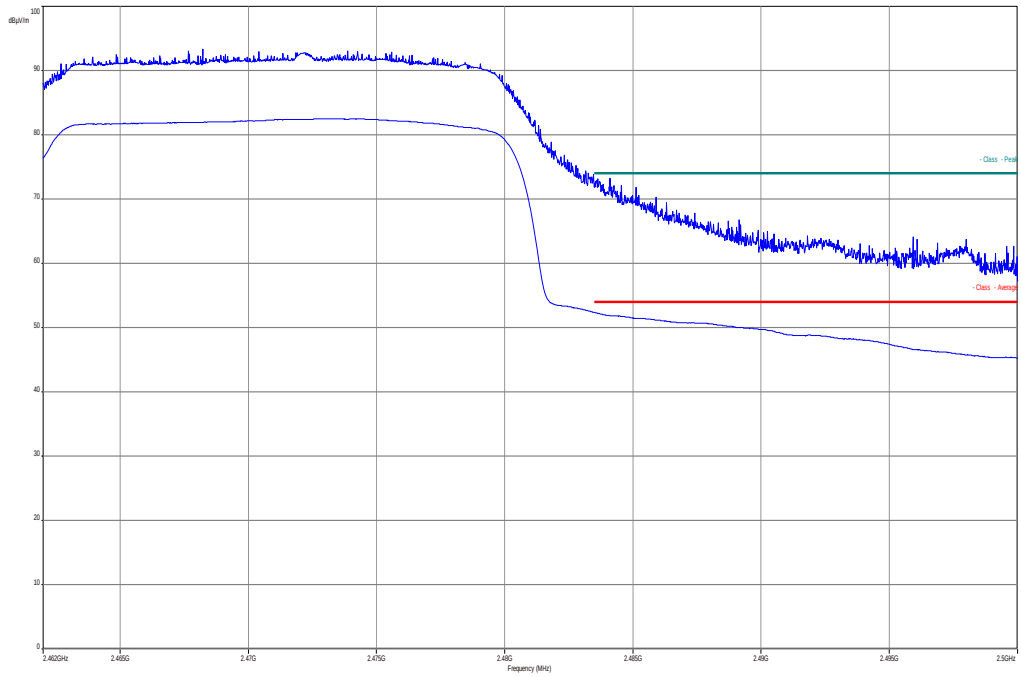


Plots: OFDM / n – mode HT40 - peak / average (ANT 453564271931)

Plot 1: TX mode, lower band edge, vertical & horizontal polarization



Plot 2: TX mode, upper band edge, vertical & horizontal polarization



9.8 TX spurious emissions conducted

Description:

Measurement of the conducted spurious emissions in transmit mode. The measurement is performed at channel 1, 6 and 11. The measurement is repeated for all modulations.

Measurement:

Measurement parameter	
According to:	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	100 kHz
Video bandwidth:	500 kHz
Span:	9 kHz to 25 GHz
Trace-Mode:	Max Hold

Limits:

FCC	IC
TX Spurious Emissions Conducted	
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required	

Results: DSSS / b – mode

TX Spurious Emissions Conducted					
DSSS / b – mode					
f [MHz]		amplitude of emission [dBm]	limit max. allowed emission power	actual attenuation below frequency of operation [dB]	results
2412		2.4	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
2437		3.1	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
2462		2.8	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
Measurement uncertainty		± 3 dB			

Result: **Passed**

Results: OFDM / g – mode

TX Spurious Emissions Conducted					
OFDM / g – mode					
f [MHz]		amplitude of emission [dBm]	limit max. allowed emission power	actual attenuation below frequency of operation [dB]	results
2412		-6.9	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
2437		-4.4	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
2462		-7.0	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
Measurement uncertainty		± 3 dB			

Result: **Passed**

Results: OFDM / n – mode HT20

TX Spurious Emissions Conducted					
OFDM / n – mode					
f [MHz]		amplitude of emission [dBm]	limit max. allowed emission power	actual attenuation below frequency of operation [dB]	results
2412		-8.0	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
2437		-4.6	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
2462		-7.9	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
Measurement uncertainty			± 3 dB		

Result: **Passed**

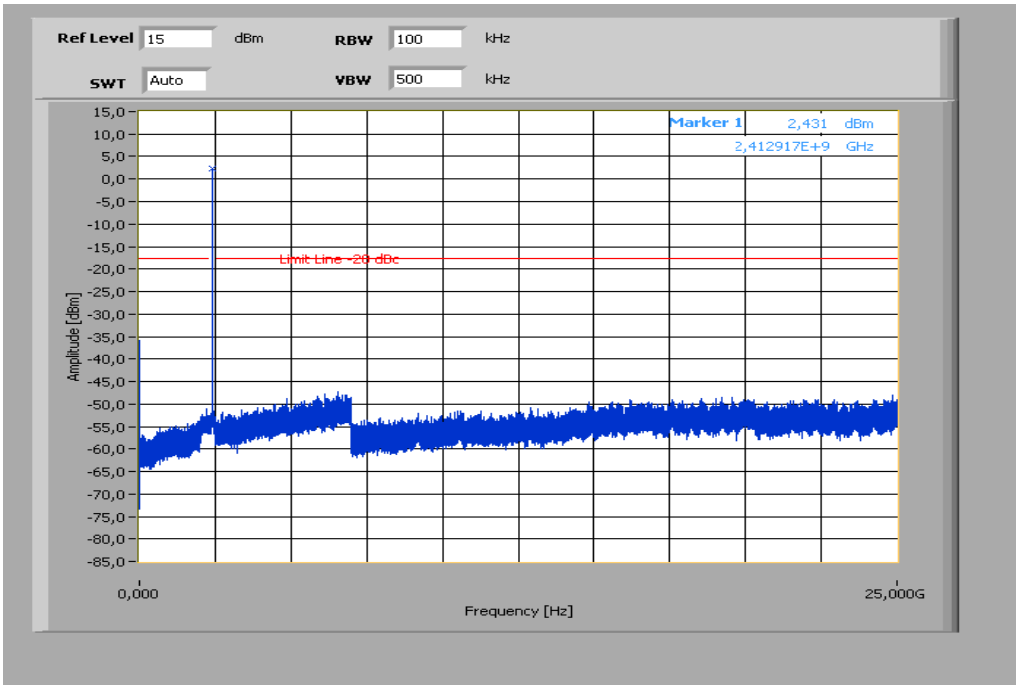
Results: OFDM / n – mode HT40

TX Spurious Emissions Conducted					
OFDM / n – mode					
f [MHz]		amplitude of emission [dBm]	limit max. allowed emission power	actual attenuation below frequency of operation [dB]	results
2422		-10.7	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
2437		-8.0	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
2452		-9.0	30 dBm		Operating frequency
No peaks detected. All detected emissions are below the -20 dBc criteria.			-20 dBc (peak) -30 dBc (average)		complies
Measurement uncertainty			± 3 dB		

Result: **Passed**

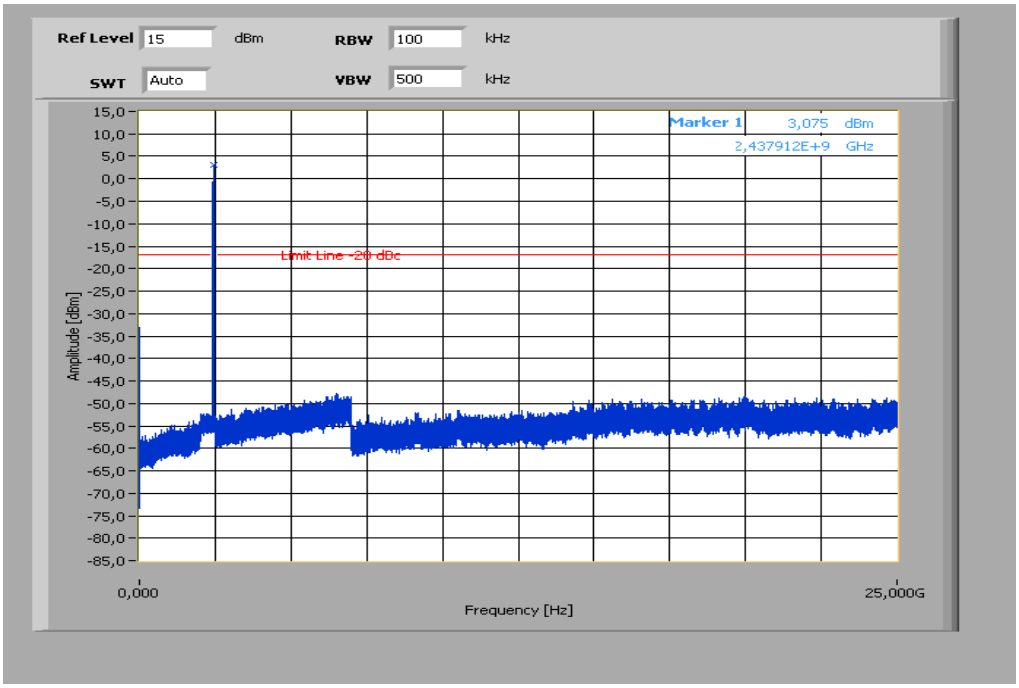
Plots: DSSS / b – mode

Plot 1: TX mode, lowest channel, up to 25 GHz



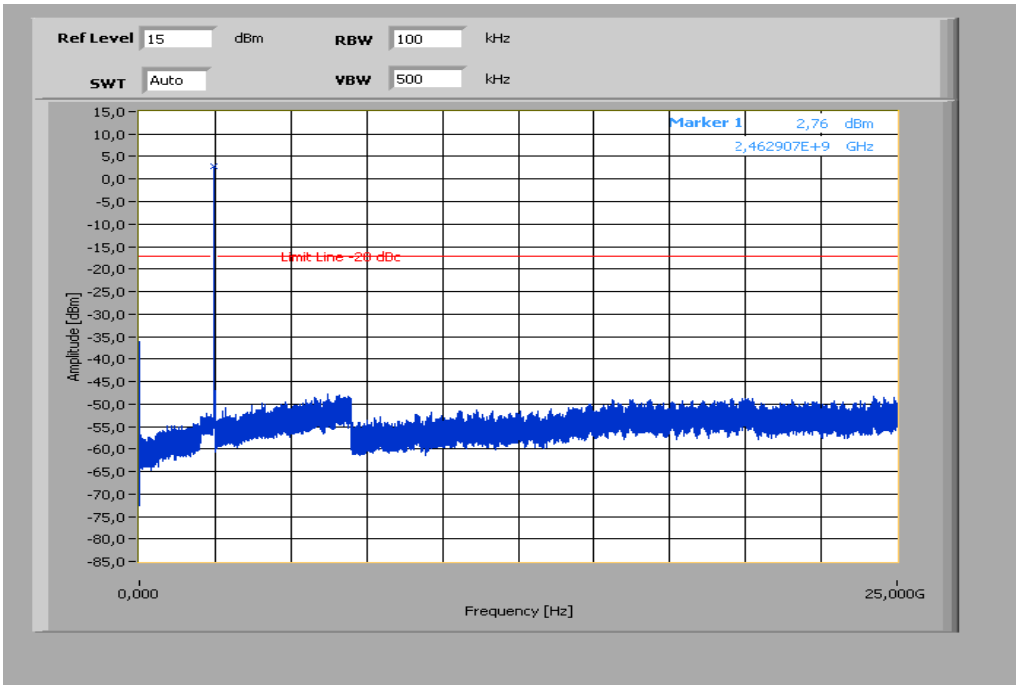
The peak at the beginning of the plot is the LO from the SA.

Plot 2: TX mode, middle channel, up to 25 GHz



The peak at the beginning of the plot is the LO from the SA.

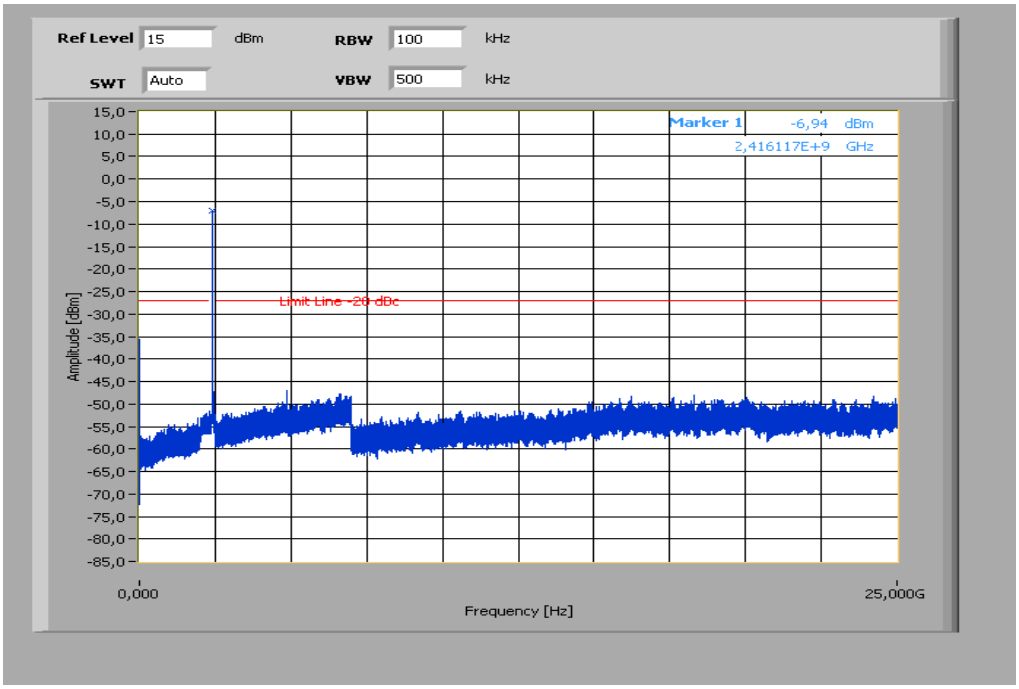
Plot 3: TX mode, highest channel, up to 25 GHz



The peak at the beginning of the plot is the LO from the SA.

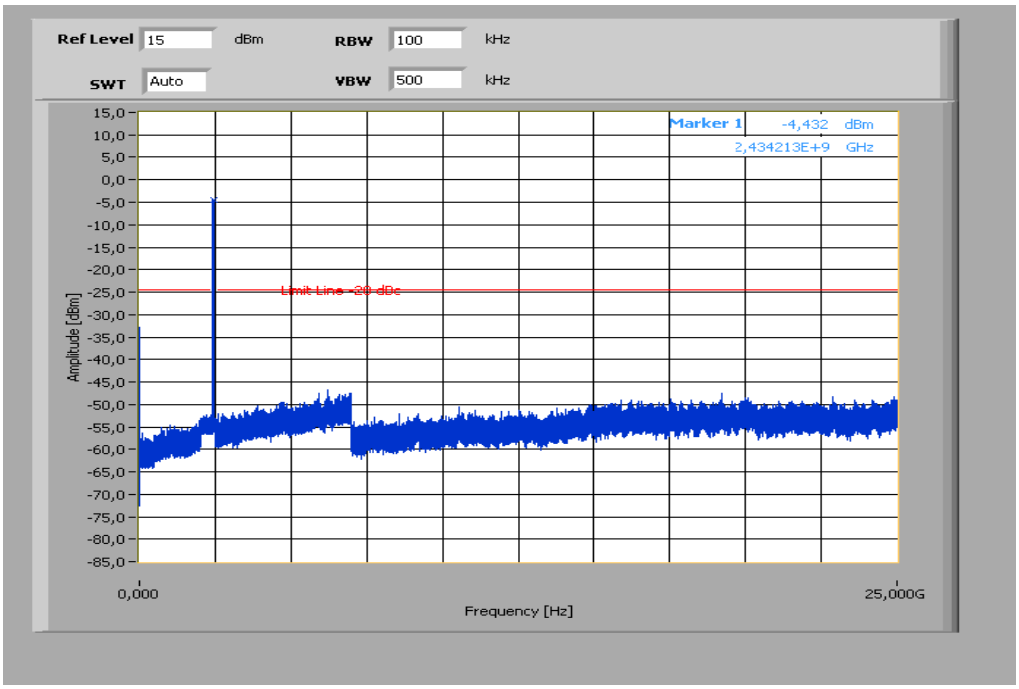
Plots: OFDM / g – mode

Plot 1: TX mode, lowest channel, up to 25 GHz



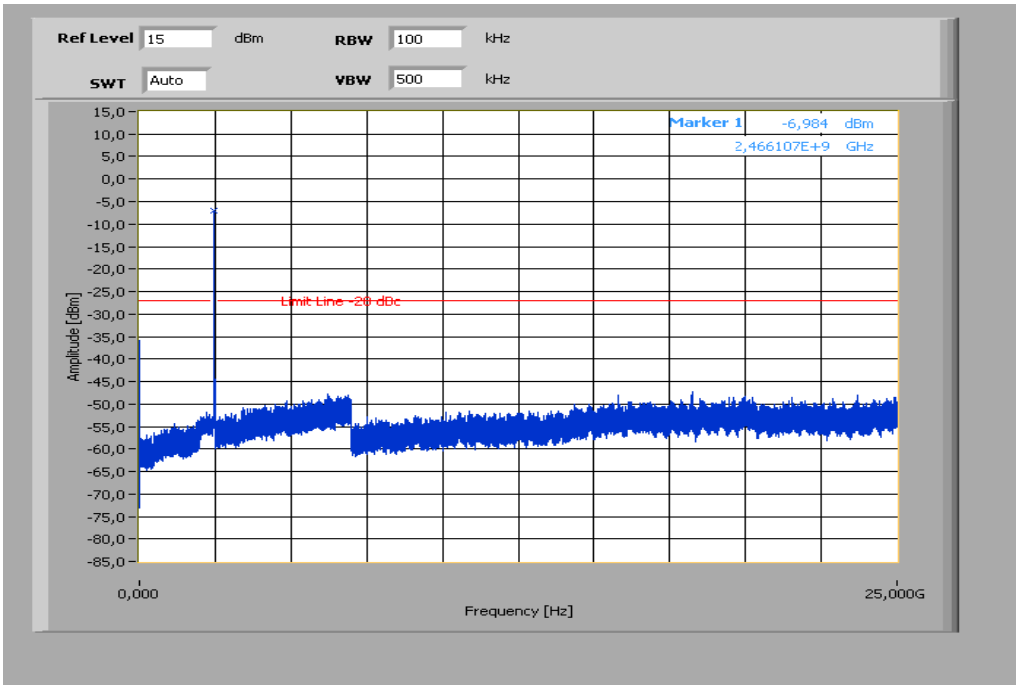
The peak at the beginning of the plot is the LO from the SA.

Plot 2: TX mode, middle channel, up to 25 GHz



The peak at the beginning of the plot is the LO from the SA.

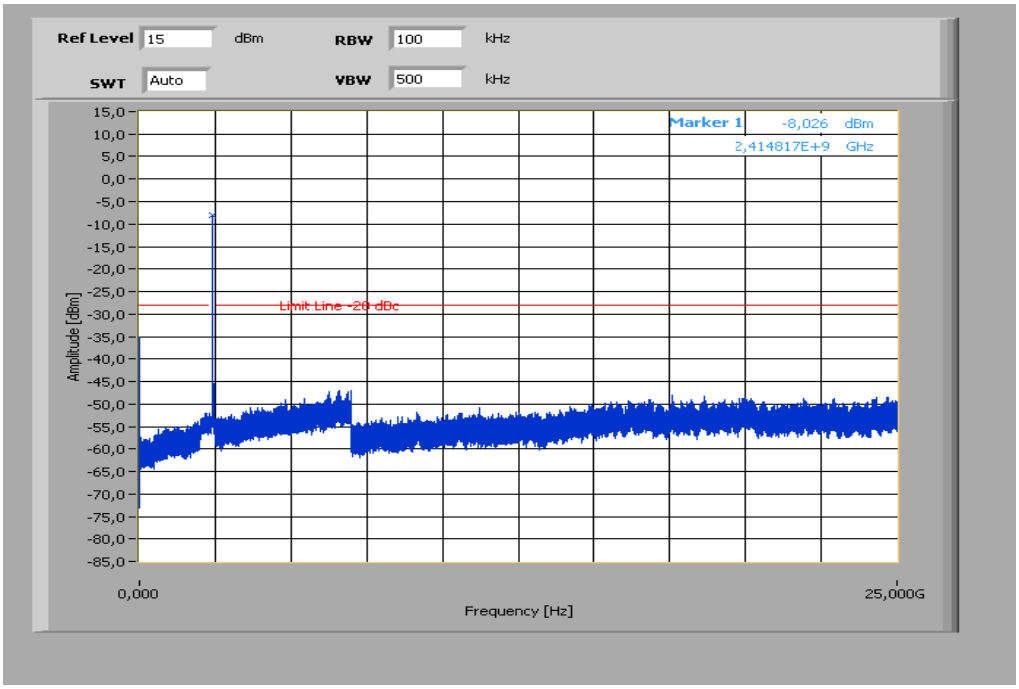
Plot 3: TX mode, highest channel, up to 25 GHz



The peak at the beginning of the plot is the LO from the SA.

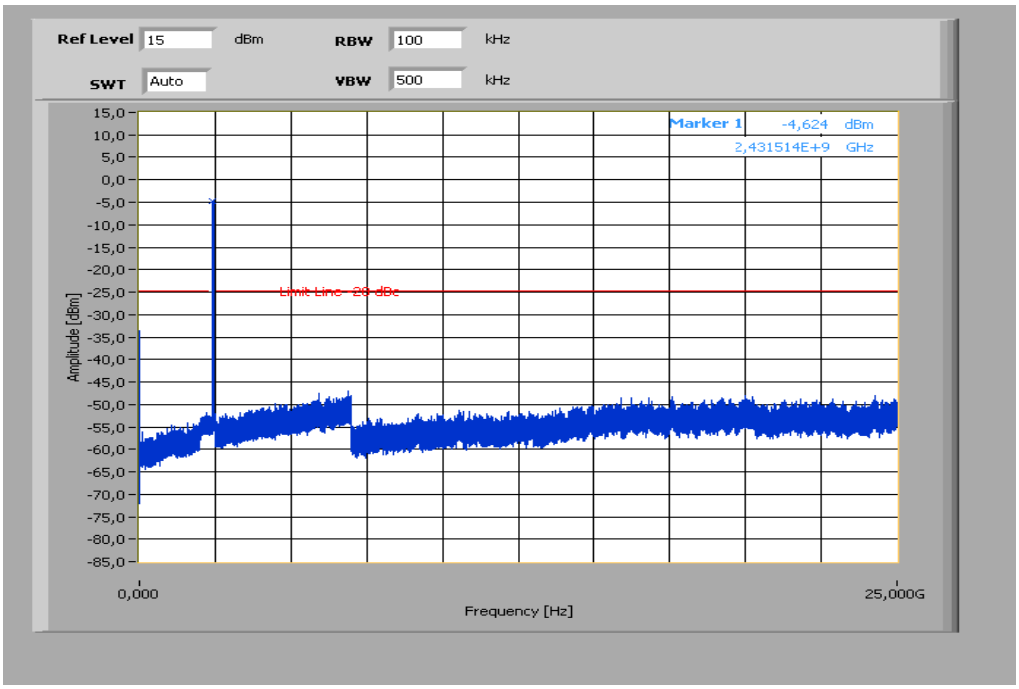
Plots: OFDM / n – mode HT20

Plot 1: TX mode, lowest channel, up to 25 GHz



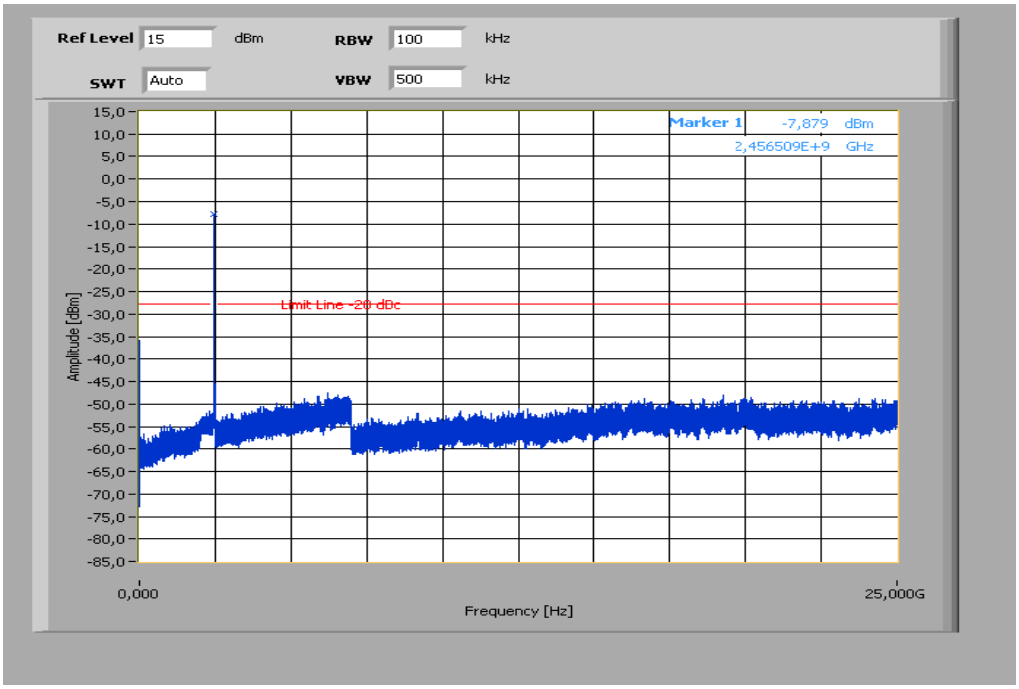
The peak at the beginning of the plot is the LO from the SA.

Plot 2: TX mode, middle channel, up to 25 GHz



The peak at the beginning of the plot is the LO from the SA.

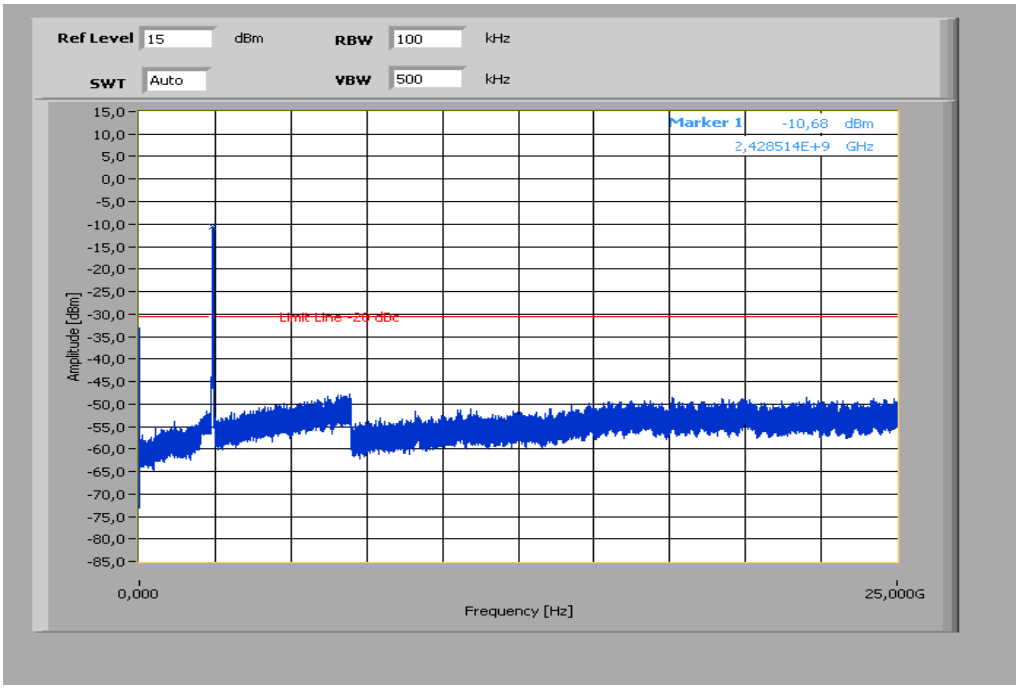
Plot 3: TX mode, highest channel, up to 25 GHz



The peak at the beginning of the plot is the LO from the SA.

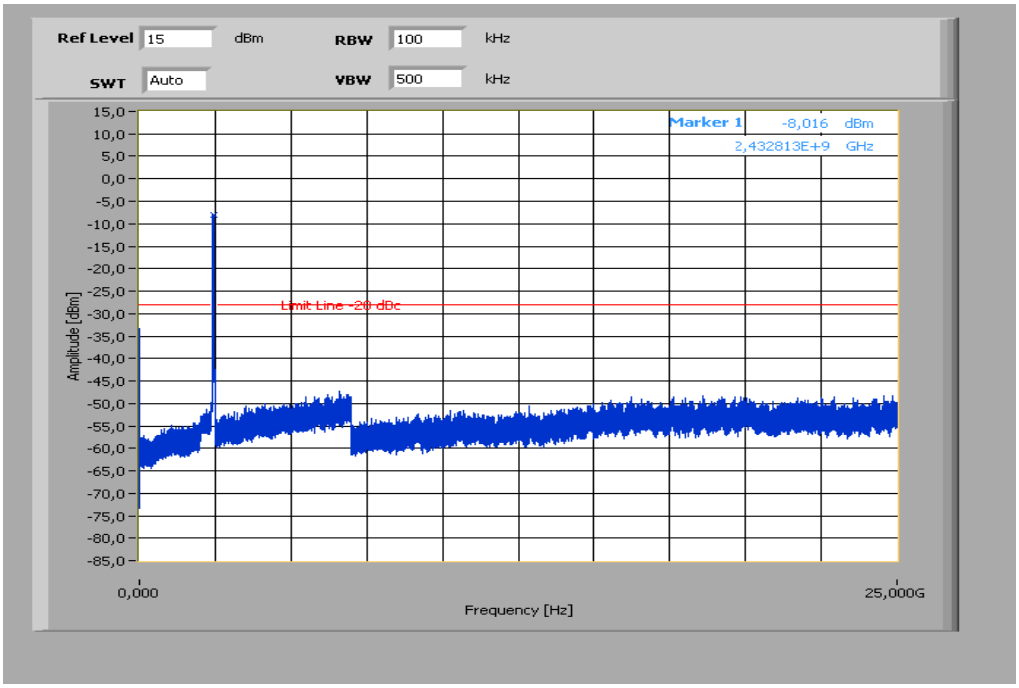
Plots: OFDM / n – mode HT40

Plot 1: TX mode, lowest channel, up to 25 GHz



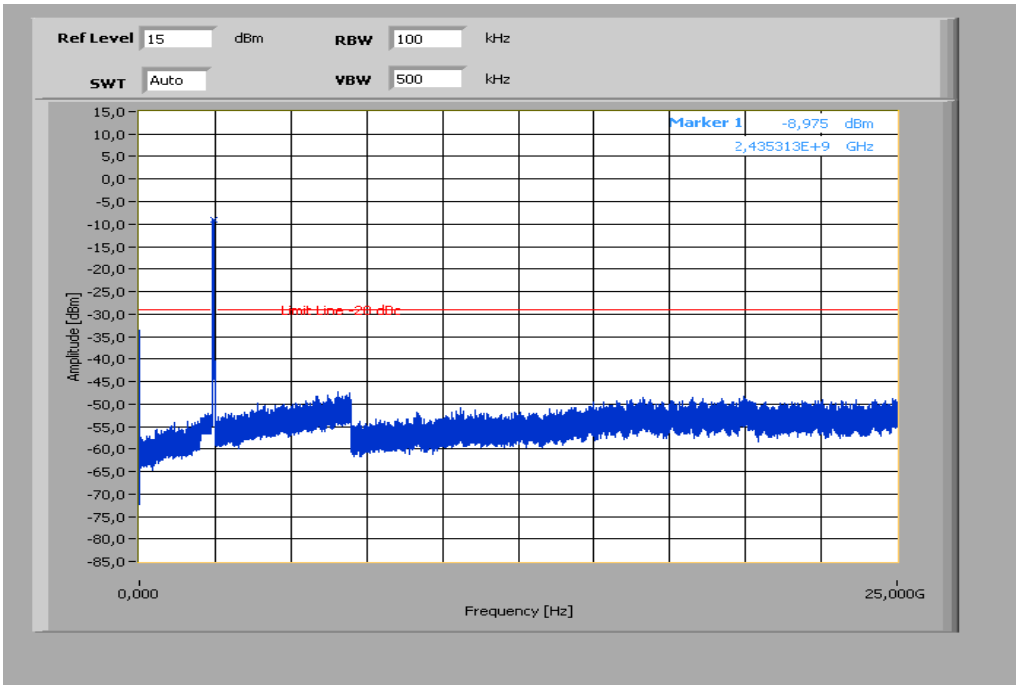
The peak at the beginning of the plot is the LO from the SA.

Plot 2: TX mode, middle channel, up to 25 GHz



The peak at the beginning of the plot is the LO from the SA.

Plot 3: TX mode, highest channel, up to 25 GHz



The peak at the beginning of the plot is the LO from the SA.

9.9 TX spurious emissions radiated

Description:

Measurement of the radiated spurious emissions in transmit mode. The measurement is performed at channel 1, 6 and 11. The measurement is repeated for all modulations.

Measurement:

Measurement parameter	
Detector:	Peak / Quasi Peak / RMS
Sweep time:	Auto
Resolution bandwidth:	F > 1 GHz: 1 MHz F < 1 GHz: 100 kHz
Video bandwidth:	Sweep: 100 kHz Remeasurement: 10 Hz / 3 MHz
Span:	30 MHz to 25 GHz
Trace-Mode:	Max Hold
Measured Modulation	☒ DSSS b – mode ☒ OFDM g – mode ☒ OFDM n – mode / HT20 ☒ OFDM n – mode / HT40

The modulation with the highest output power was used to perform the transmitter spurious emissions. If spurious were detected a re-measurement was performed on the detected frequency with each modulation.

Limits:

FCC	IC	
TX Spurious Emissions Radiated		
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).		
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: DSSS / b – mode

TX Spurious Emissions Radiated [dBµV/m]								
DSSS / b – mode								
2412 MHz			2437 MHz			2462 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.		
Measurement uncertainty			± 3 dB					

Result: **Passed**

Results: OFDM / g – mode

TX Spurious Emissions Radiated [dBµV/m]								
OFDM / g – mode								
2412 MHz			2437 MHz			2462 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.		
Measurement uncertainty			± 3 dB					

Result: **Passed**

Results: OFDM / n – mode / HT20

TX Spurious Emissions Radiated [dBµV/m]								
OFDM / n – mode								
2412 MHz			2437 MHz			2462 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.		
Measurement uncertainty			± 3 dB					

Result: **Passed**

Results: OFDM / n – mode / HT40

TX Spurious Emissions Radiated [dBµV/m]								
OFDM / n – mode								
2422 MHz			2437 MHz			2452 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.		
Measurement uncertainty			± 3 dB					

Result: **Passed**

Plots: DSSS / b – mode (ANT M3002-66494)

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

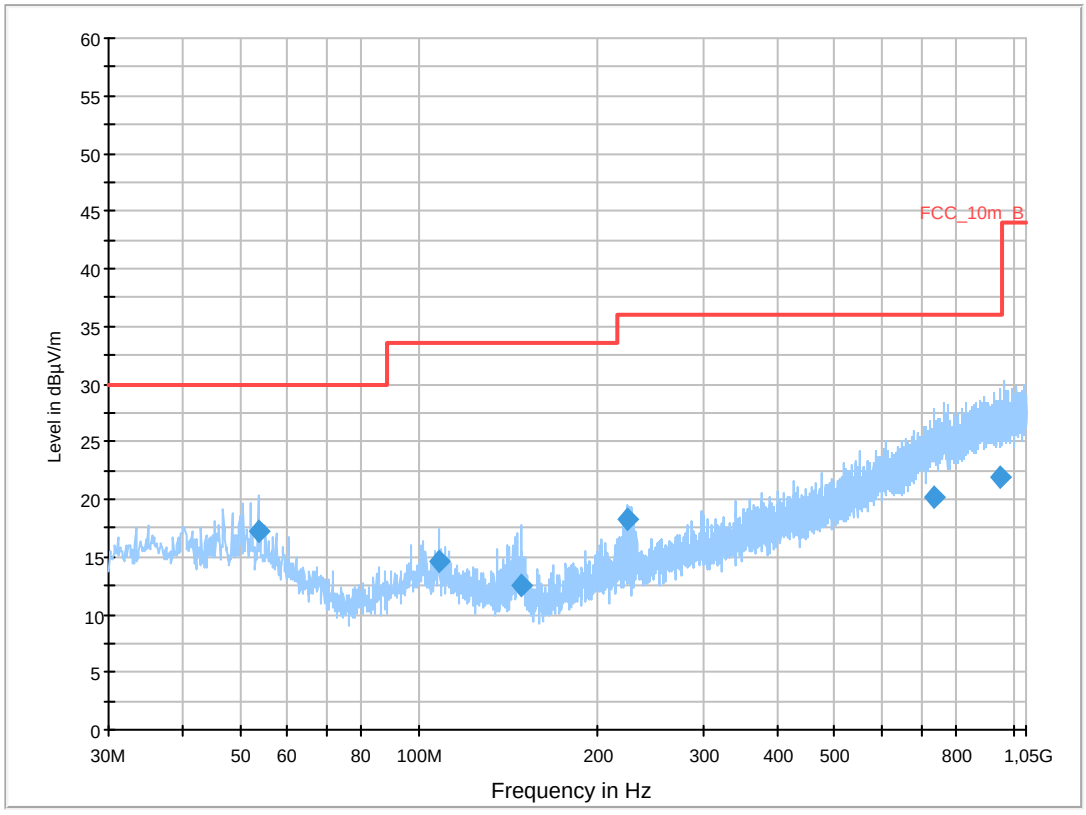
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx b-mode ch1
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup:	Electric Field (NOS)
Level Unit:	dBµV/m

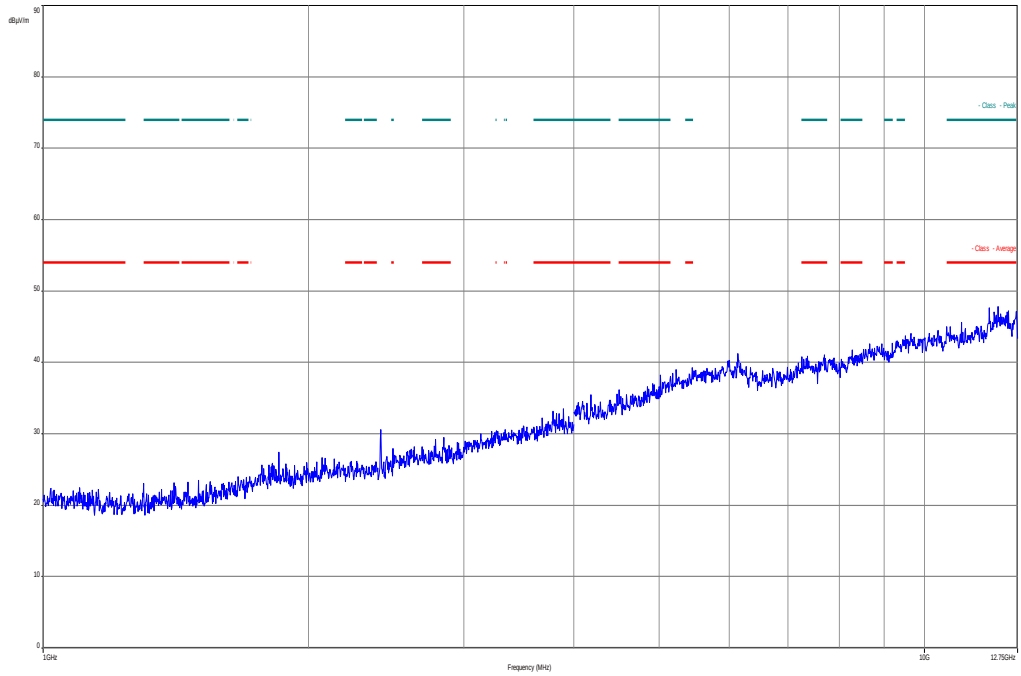
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

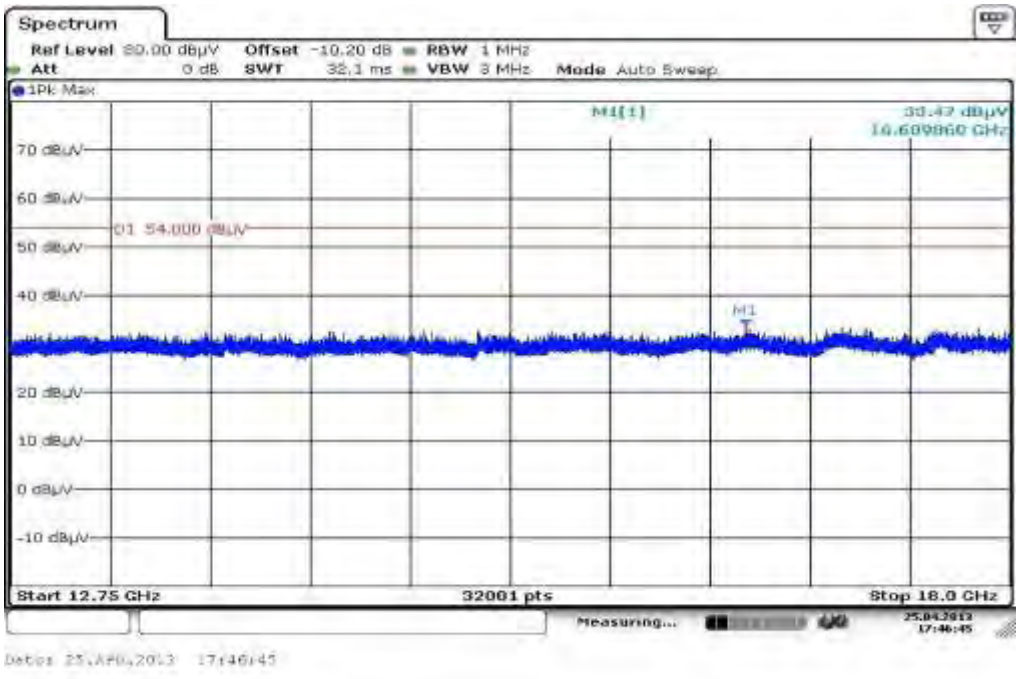
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
53.655300	17.3	1000.0	120.000	119.0	V	3.0	13.0	12.7	30.0	
108.067650	14.6	1000.0	120.000	170.0	V	-2.0	11.2	18.9	33.5	
148.798950	12.5	1000.0	120.000	142.0	V	190.0	8.9	21.0	33.5	
223.617150	18.3	1000.0	120.000	170.0	V	2.0	12.5	17.7	36.0	
733.423350	20.1	1000.0	120.000	105.0	H	260.0	23.3	15.9	36.0	
947.917800	21.9	1000.0	120.000	170.0	H	-5.0	25.3	14.1	36.0	

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

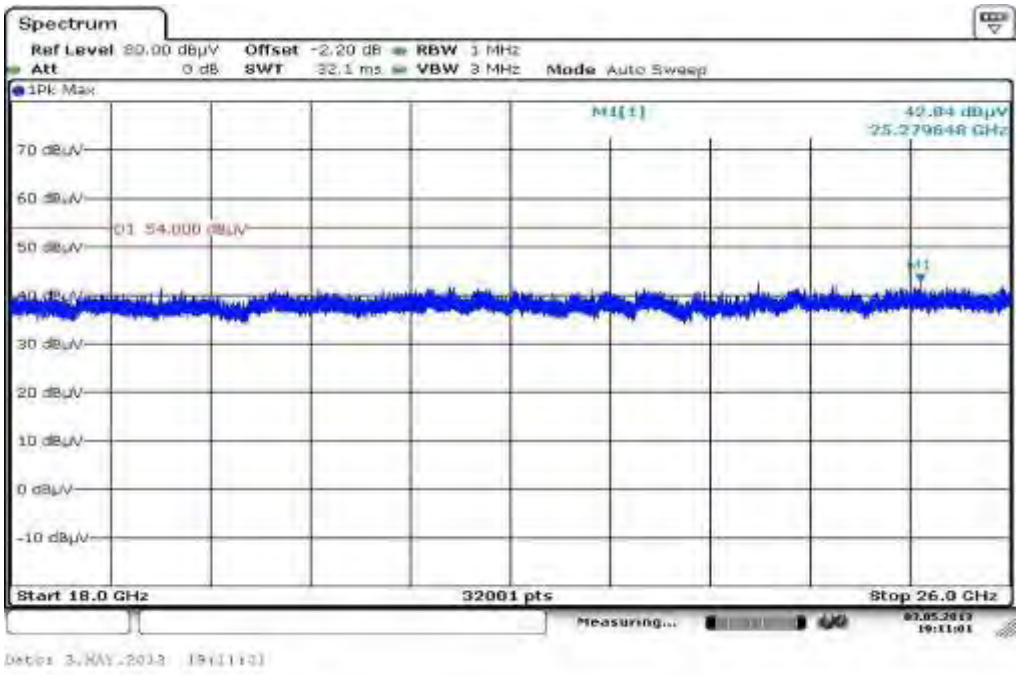


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

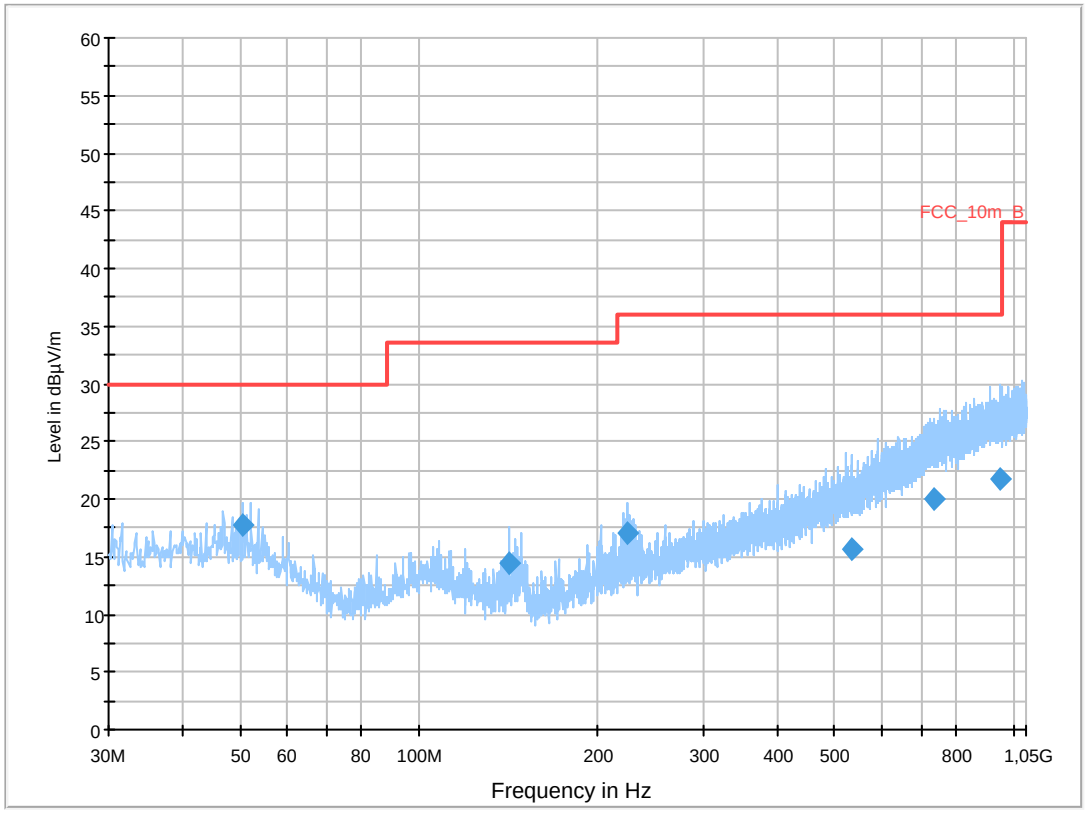
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx b-mode ch6
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

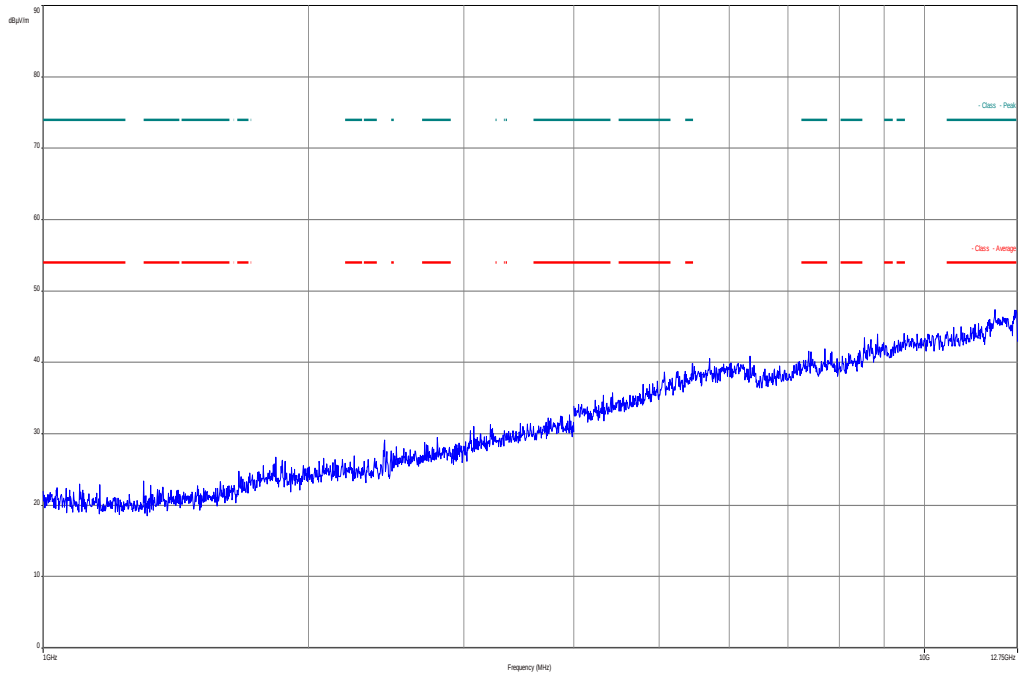
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

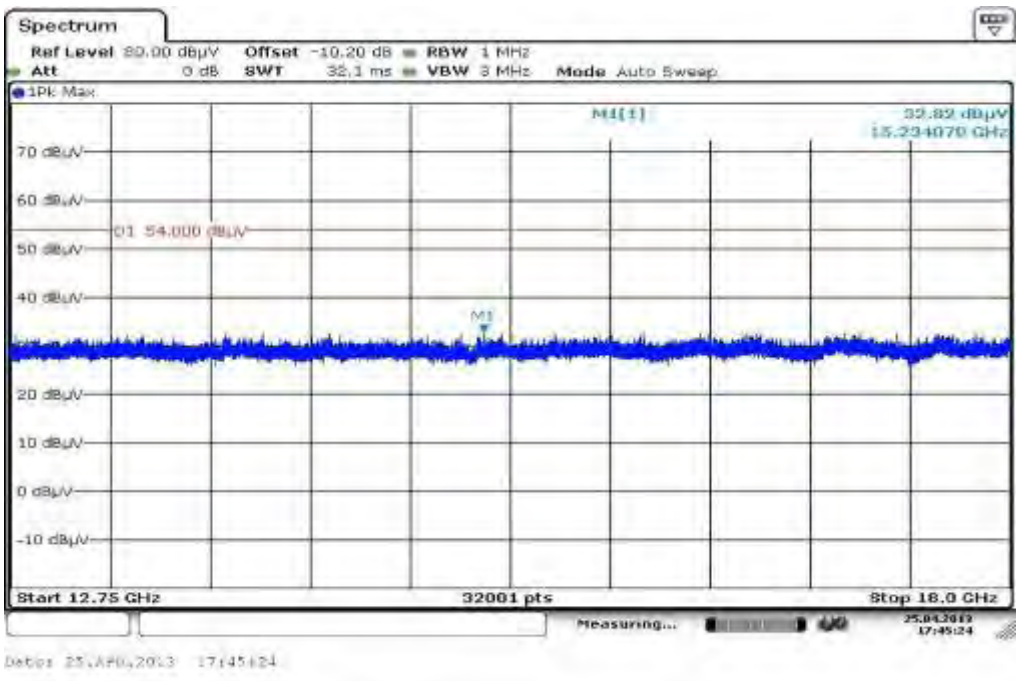
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
50.613150	17.8	1000.0	120.000	98.0	V	-10.0	13.3	12.2	30.0	
142.022250	14.4	1000.0	120.000	98.0	V	100.0	8.7	19.1	33.5	
223.594800	17.1	1000.0	120.000	170.0	V	10.0	12.5	18.9	36.0	
533.083050	15.6	1000.0	120.000	160.0	V	100.0	19.1	20.4	36.0	
733.127550	20.1	1000.0	120.000	170.0	H	261.0	23.3	15.9	36.0	
945.771000	21.8	1000.0	120.000	170.0	V	-10.0	25.3	14.2	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

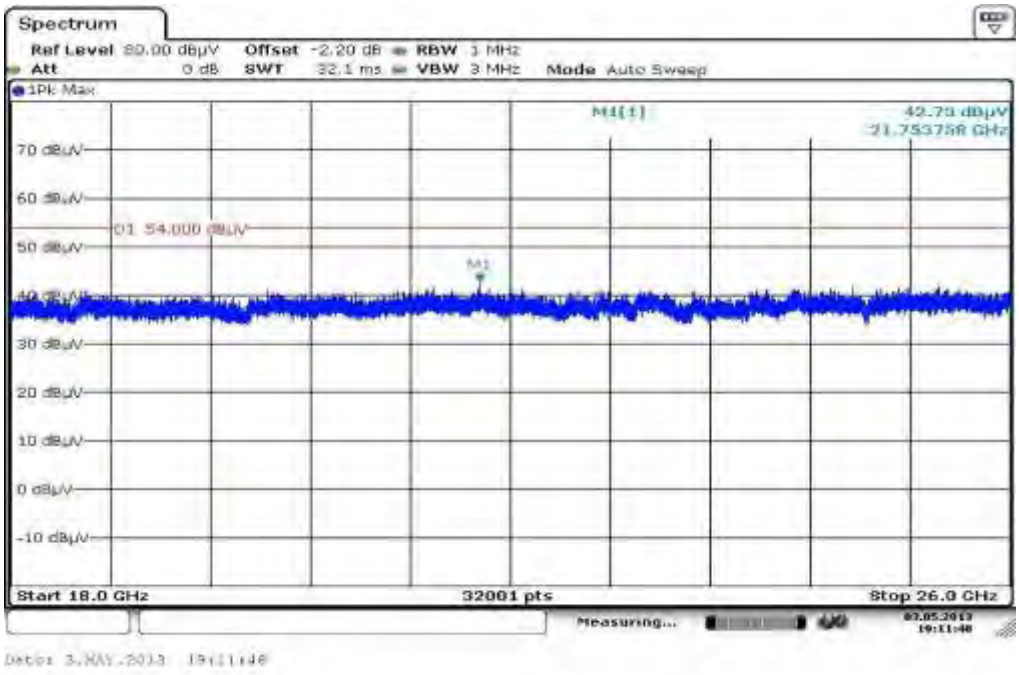


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

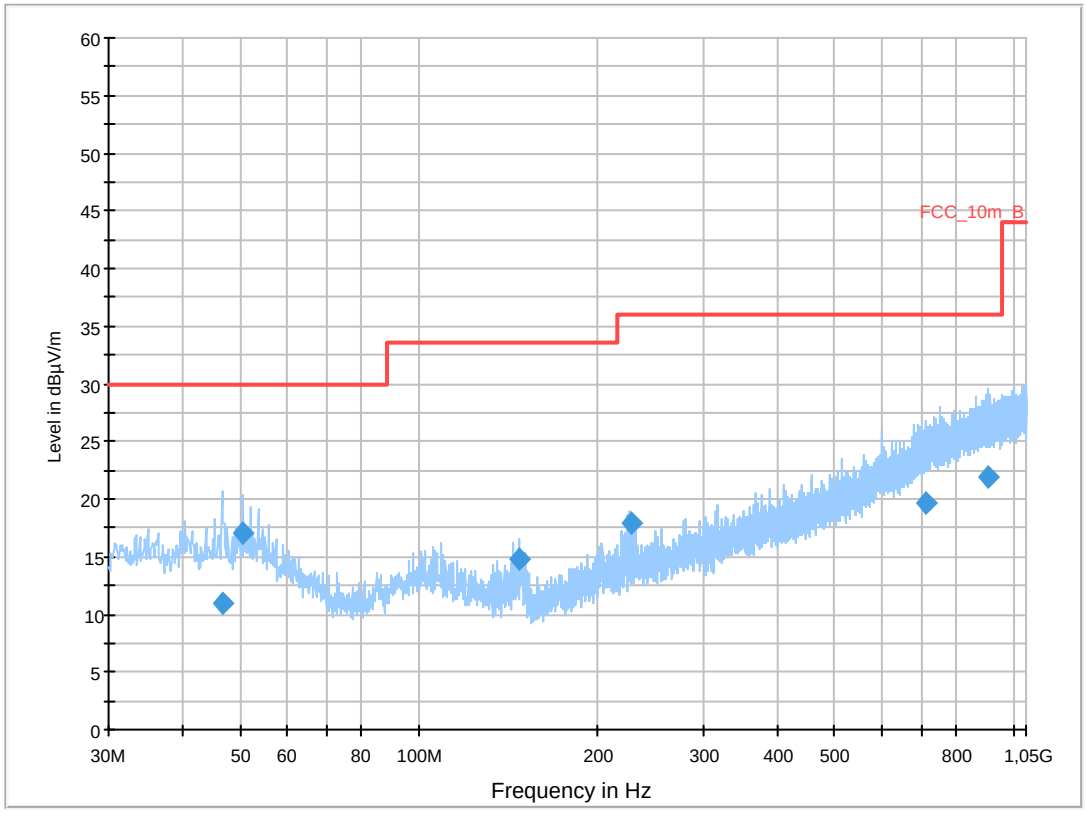
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx b-mode ch11
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

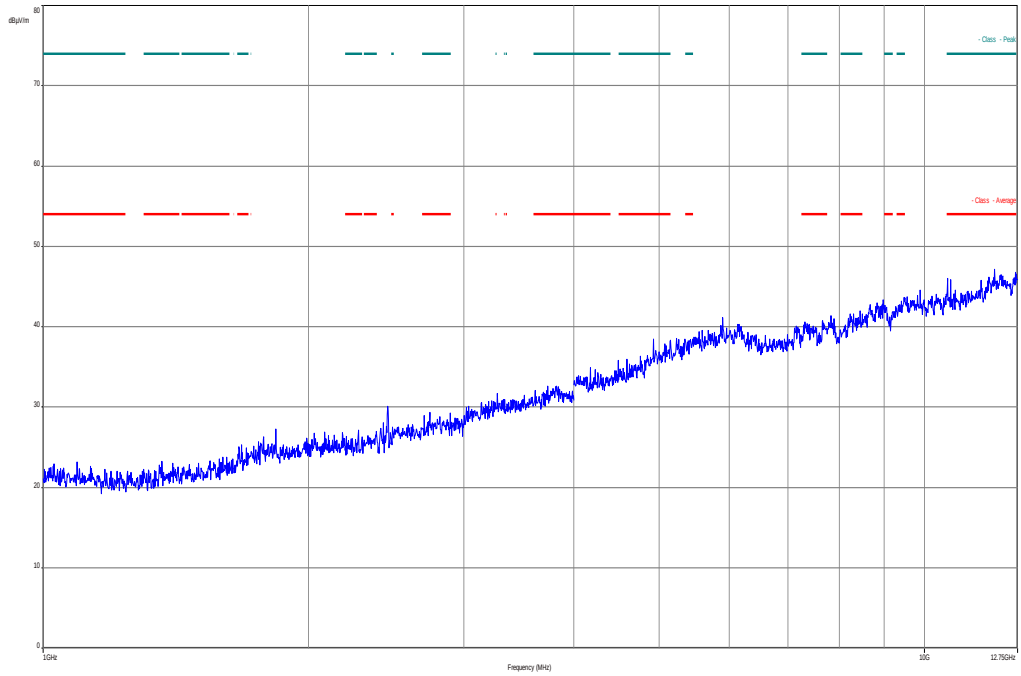
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

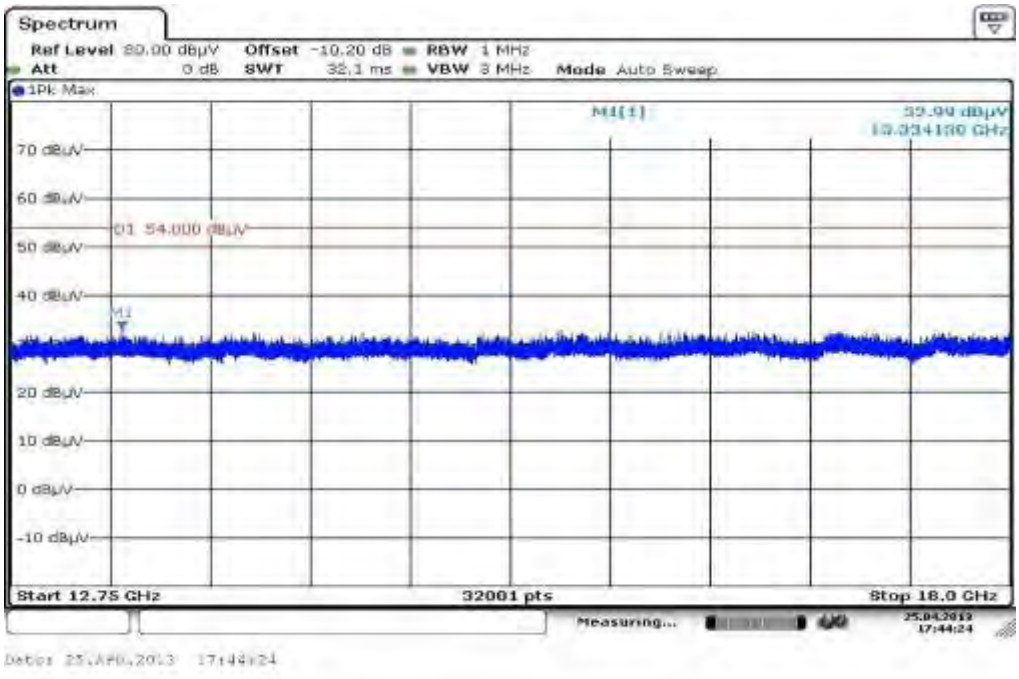
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
46.723500	11.0	1000.0	120.000	98.0	V	100.0	13.3	19.0	30.0	
50.605650	17.0	1000.0	120.000	119.0	V	100.0	13.3	13.0	30.0	
147.346950	14.7	1000.0	120.000	121.0	V	180.0	8.9	18.8	33.5	
226.682250	17.9	1000.0	120.000	170.0	V	10.0	12.6	18.1	36.0	
714.724800	19.6	1000.0	120.000	143.0	H	10.0	22.8	16.4	36.0	
902.897550	21.9	1000.0	120.000	170.0	V	-3.0	25.2	14.1	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

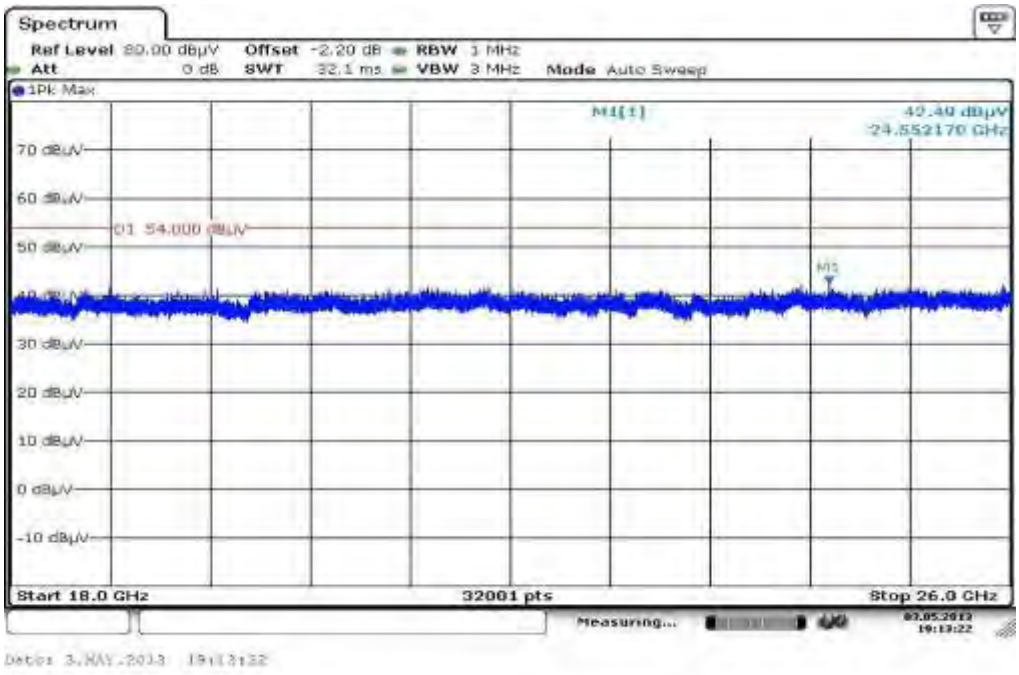


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / g – mode (ANT M3002-66494)

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

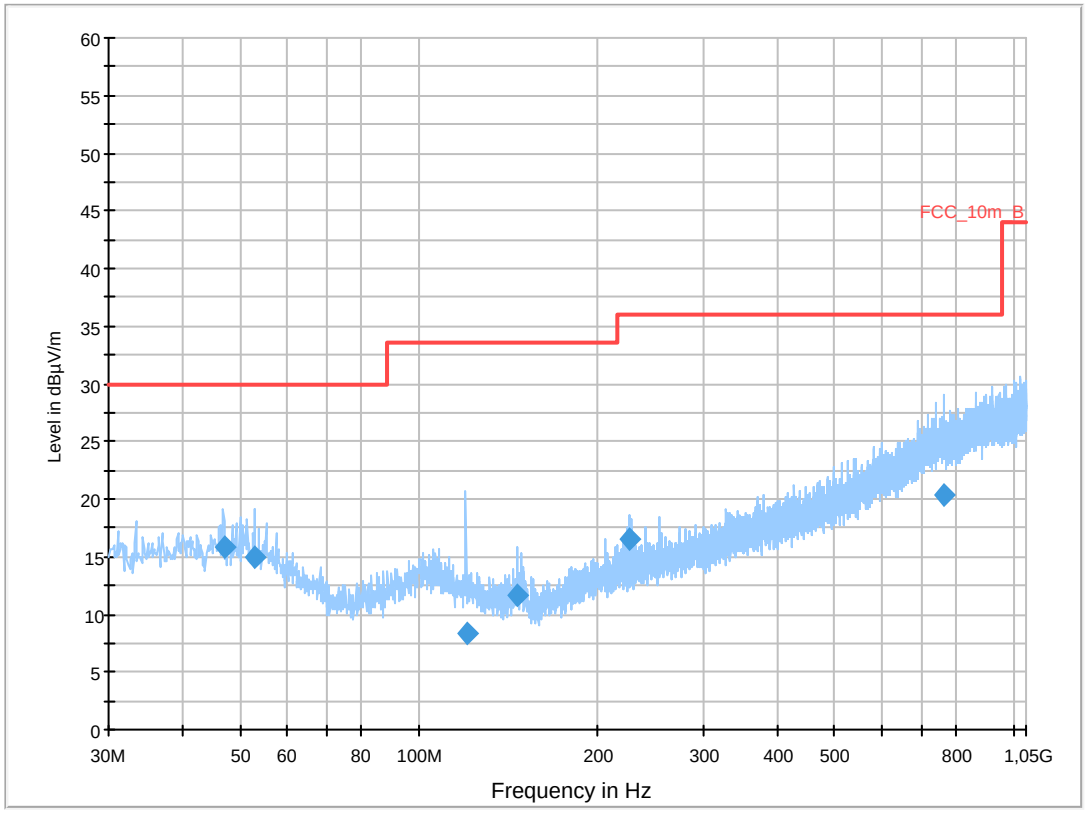
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx g-mode ch1
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

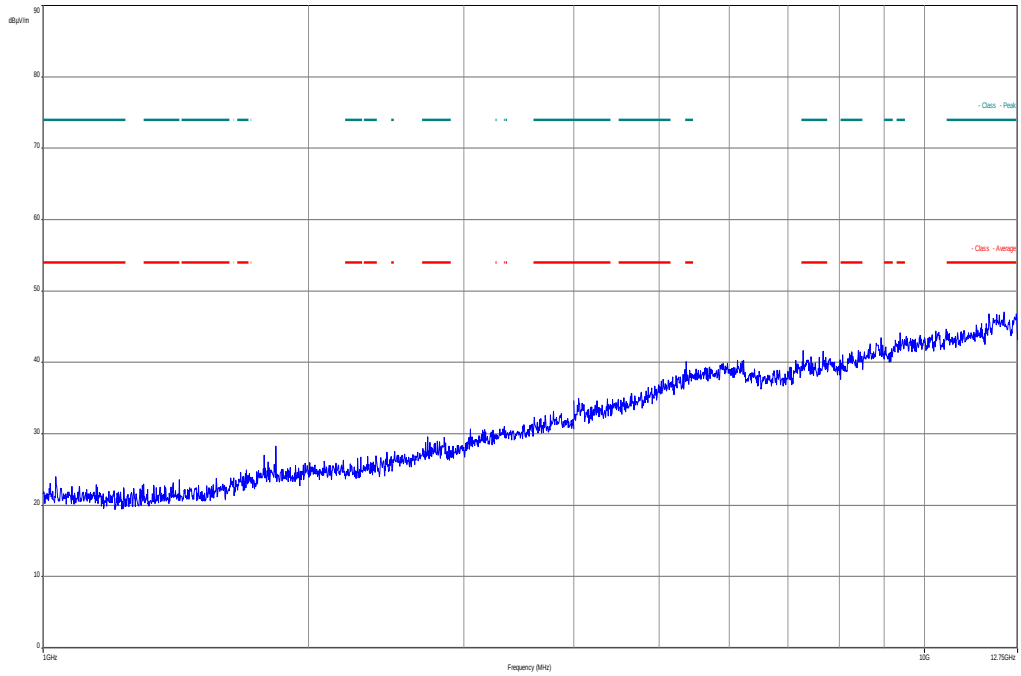
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

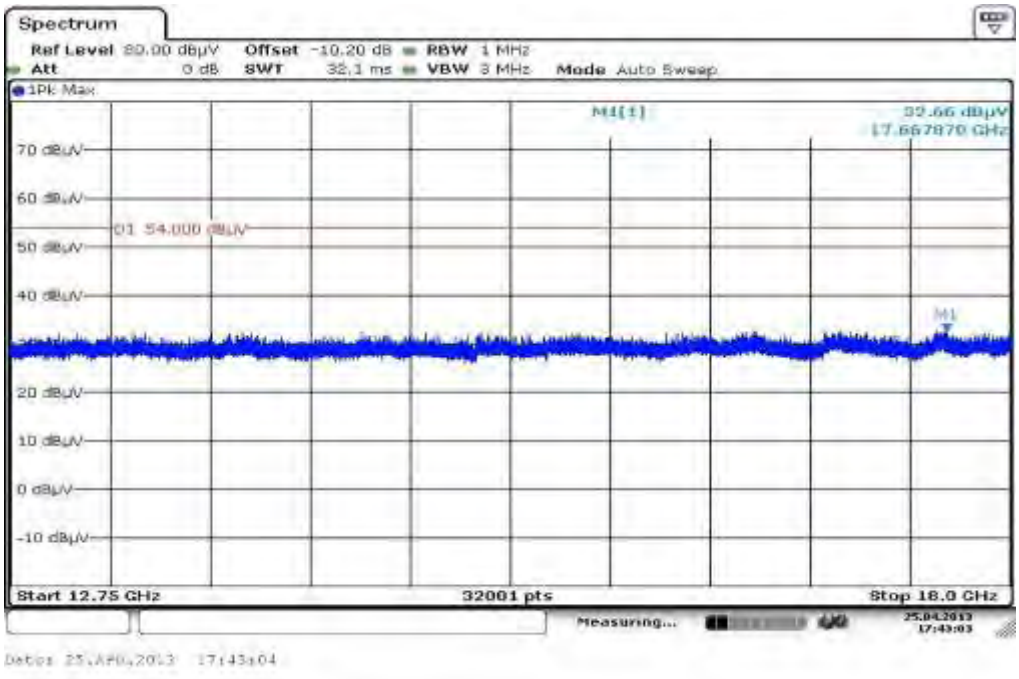
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
46.933050	15.8	1000.0	120.000	120.0	V	92.0	13.3	14.2	30.0	
52.997550	15.0	1000.0	120.000	132.0	V	-5.0	13.1	15.0	30.0	
120.005550	8.3	1000.0	120.000	98.0	V	190.0	10.2	25.2	33.5	
146.041650	11.7	1000.0	120.000	170.0	V	100.0	8.8	21.8	33.5	
226.266900	16.5	1000.0	120.000	170.0	V	10.0	12.6	19.5	36.0	
762.835200	20.4	1000.0	120.000	170.0	H	10.0	23.7	15.6	36.0	

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

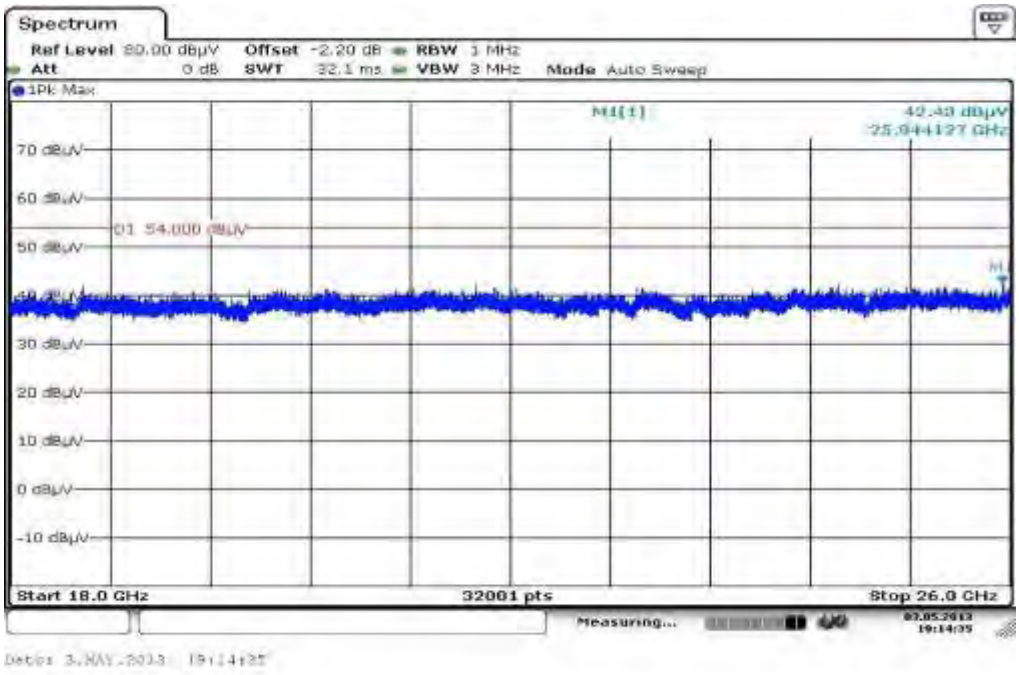


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

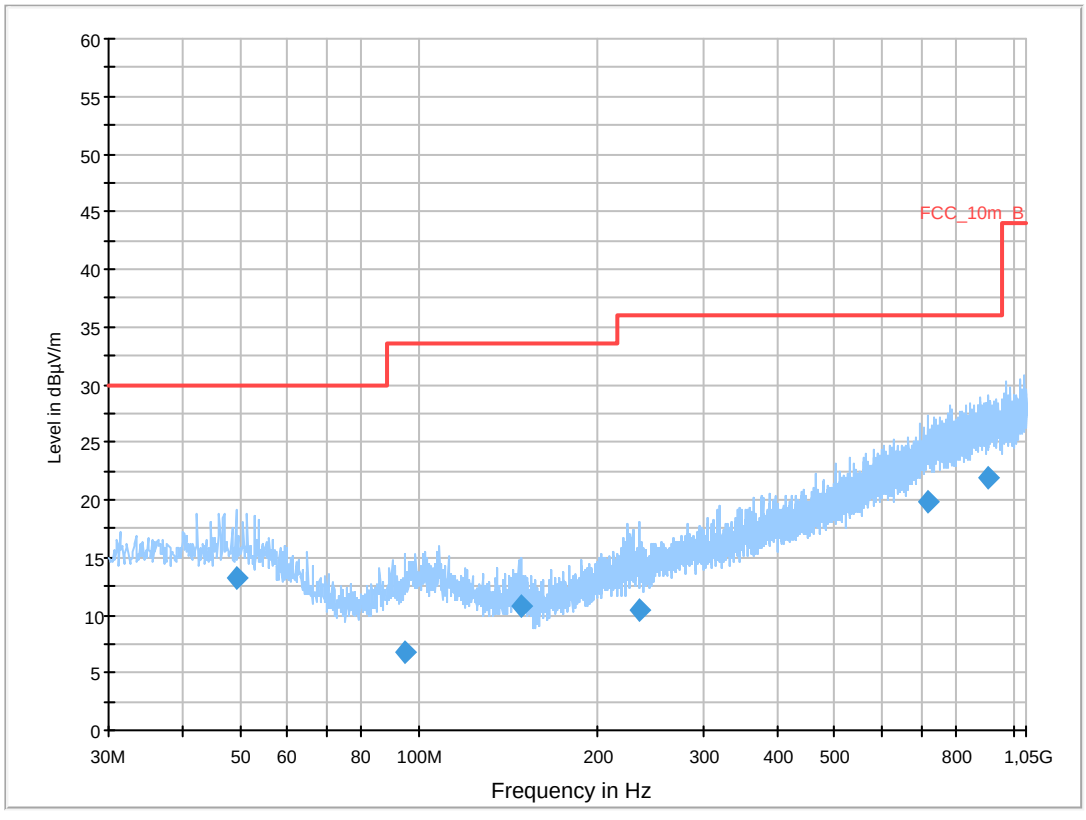
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx g-mode ch6
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

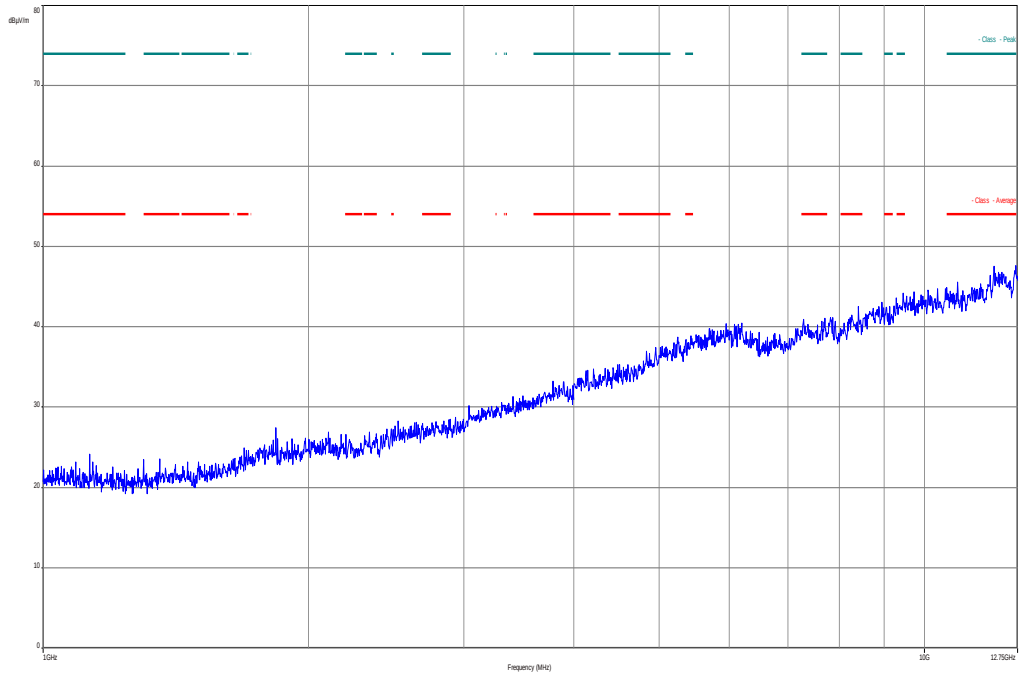
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

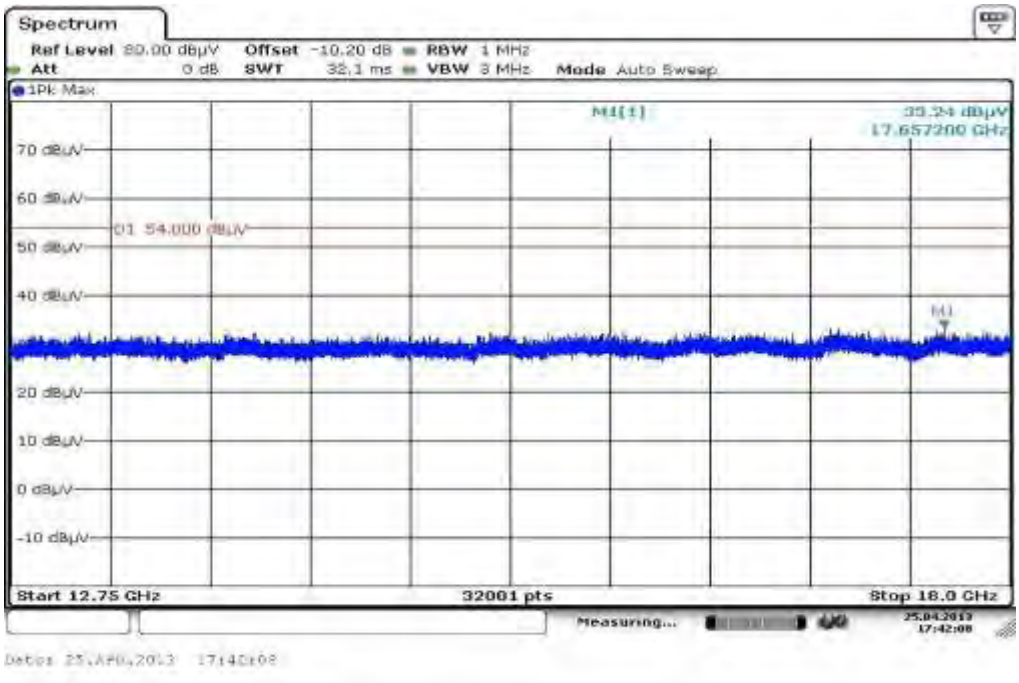
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
49.235550	13.3	1000.0	120.000	98.0	V	265.0	13.4	16.7	30.0	
94.760100	6.7	1000.0	120.000	170.0	H	280.0	11.2	26.8	33.5	
148.364550	10.8	1000.0	120.000	119.0	V	175.0	8.9	22.7	33.5	
235.269000	10.4	1000.0	120.000	170.0	V	92.0	12.9	25.6	36.0	
720.041850	19.8	1000.0	120.000	98.0	H	88.0	23.0	16.2	36.0	
909.052050	21.9	1000.0	120.000	170.0	H	-5.0	25.2	14.1	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

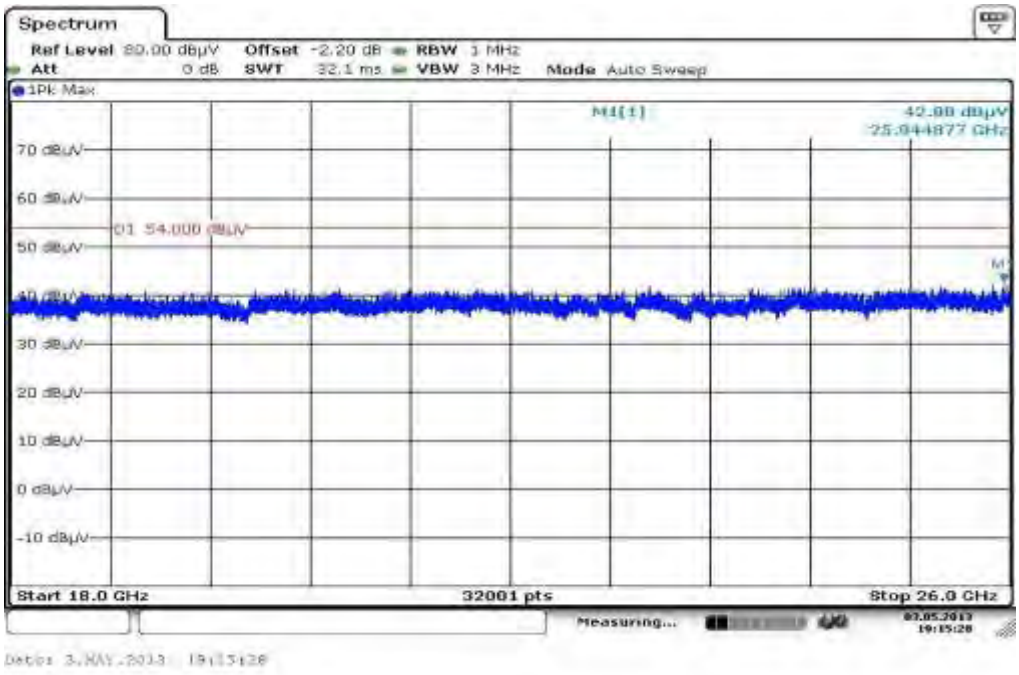


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

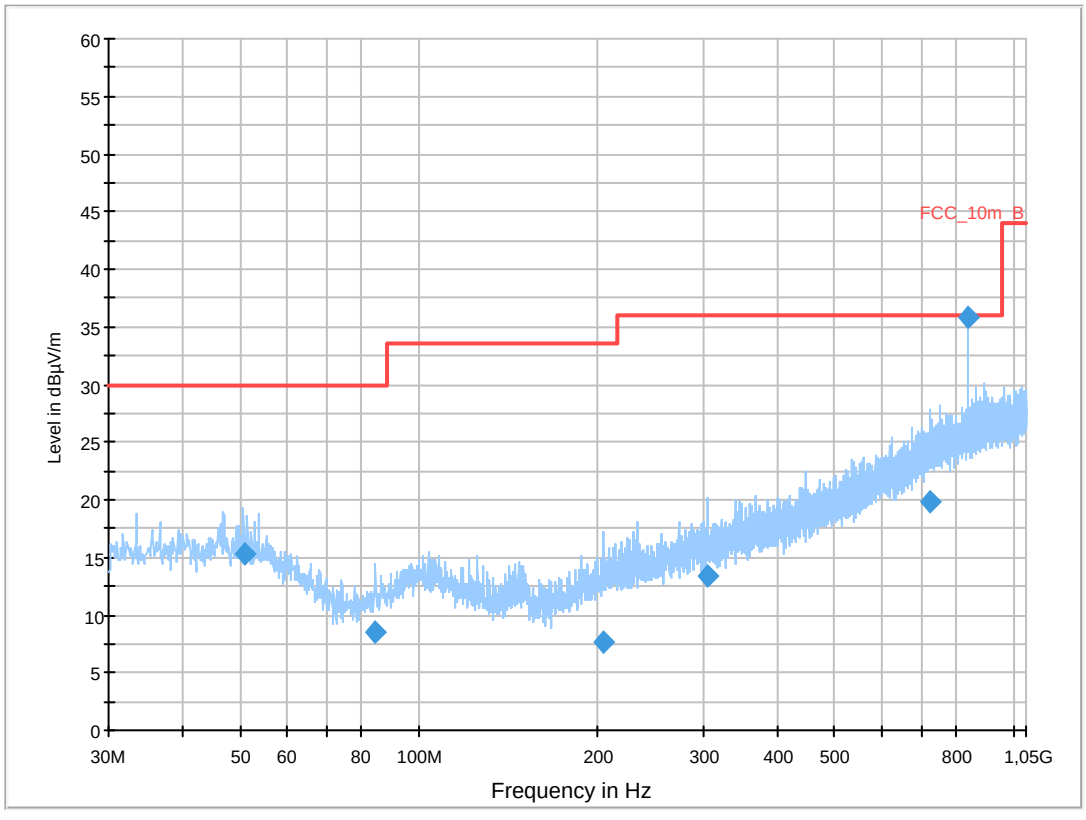
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx g-mode ch11
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

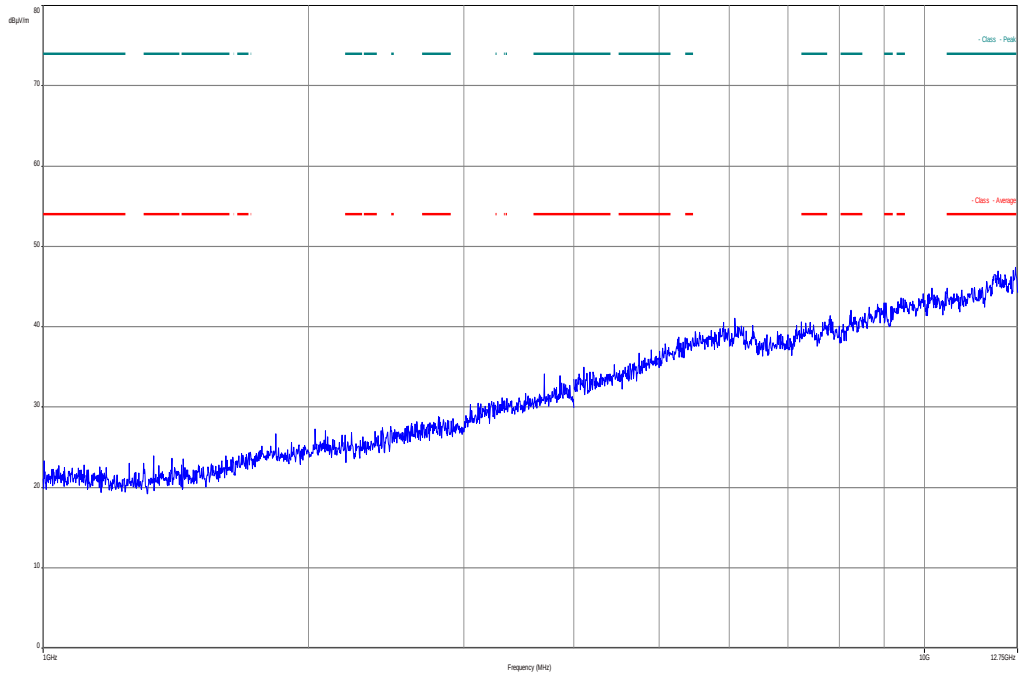
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

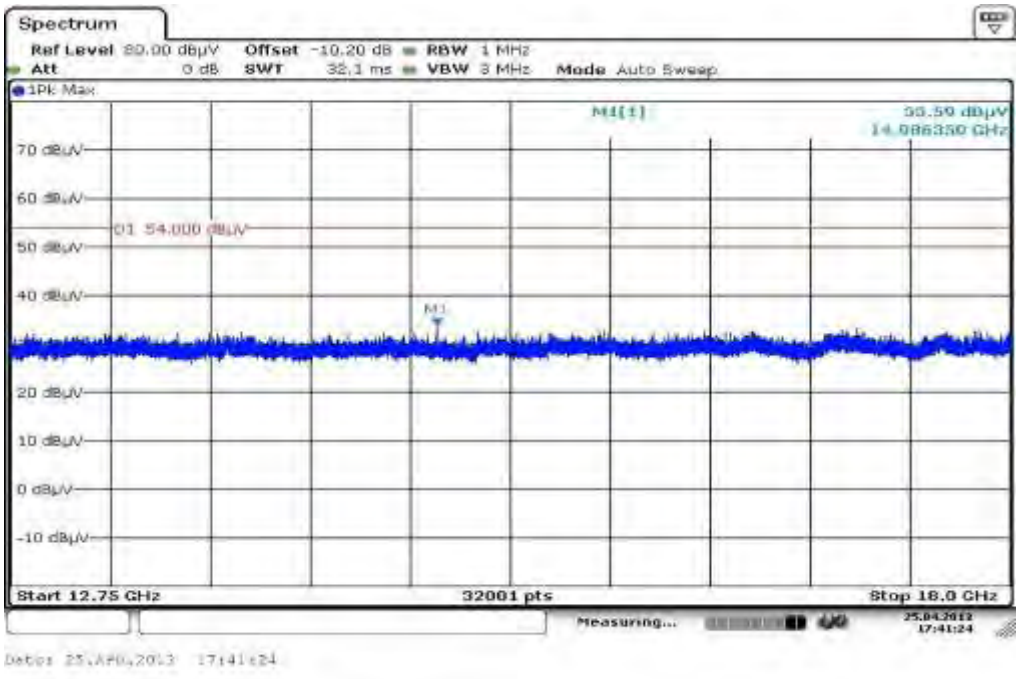
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
50.674800	15.3	1000.0	120.000	105.0	V	0.0	13.3	14.7	30.0	
84.003300	8.4	1000.0	120.000	170.0	V	190.0	9.7	21.6	30.0	
203.327700	7.7	1000.0	120.000	170.0	V	170.0	11.8	25.8	33.5	
305.236200	13.4	1000.0	120.000	170.0	H	190.0	14.7	22.6	36.0	
724.585500	19.8	1000.0	120.000	170.0	V	260.0	23.1	16.2	36.0	
836.619450	35.4	1000.0	120.000	120.0	H	280.0	24.4	0.6	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

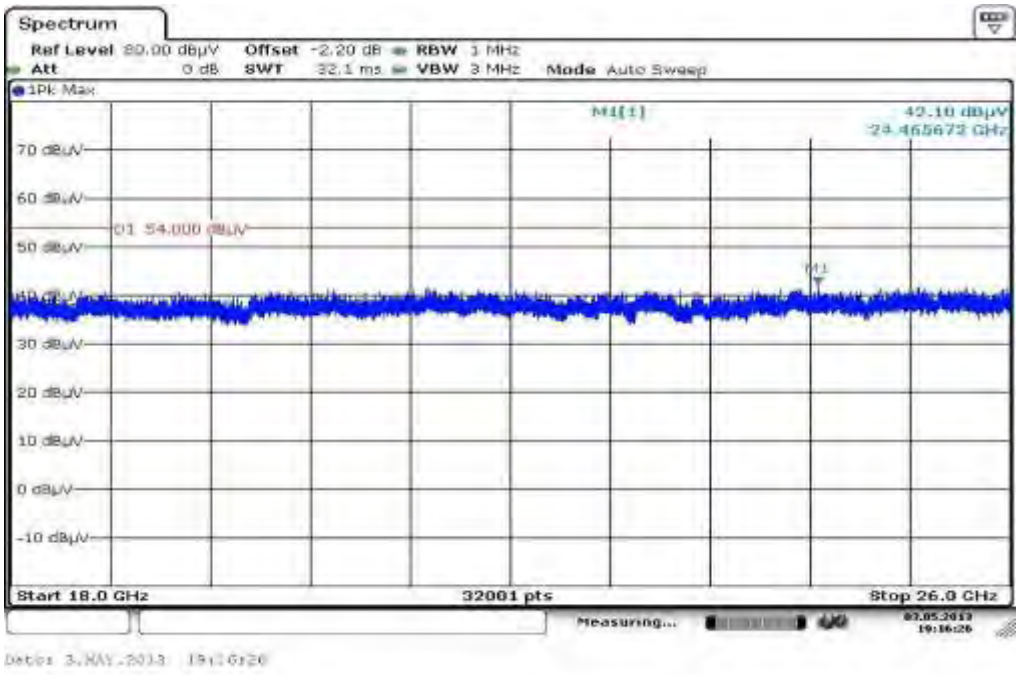


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / n – mode HT20 (ANT M3002-66494)

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

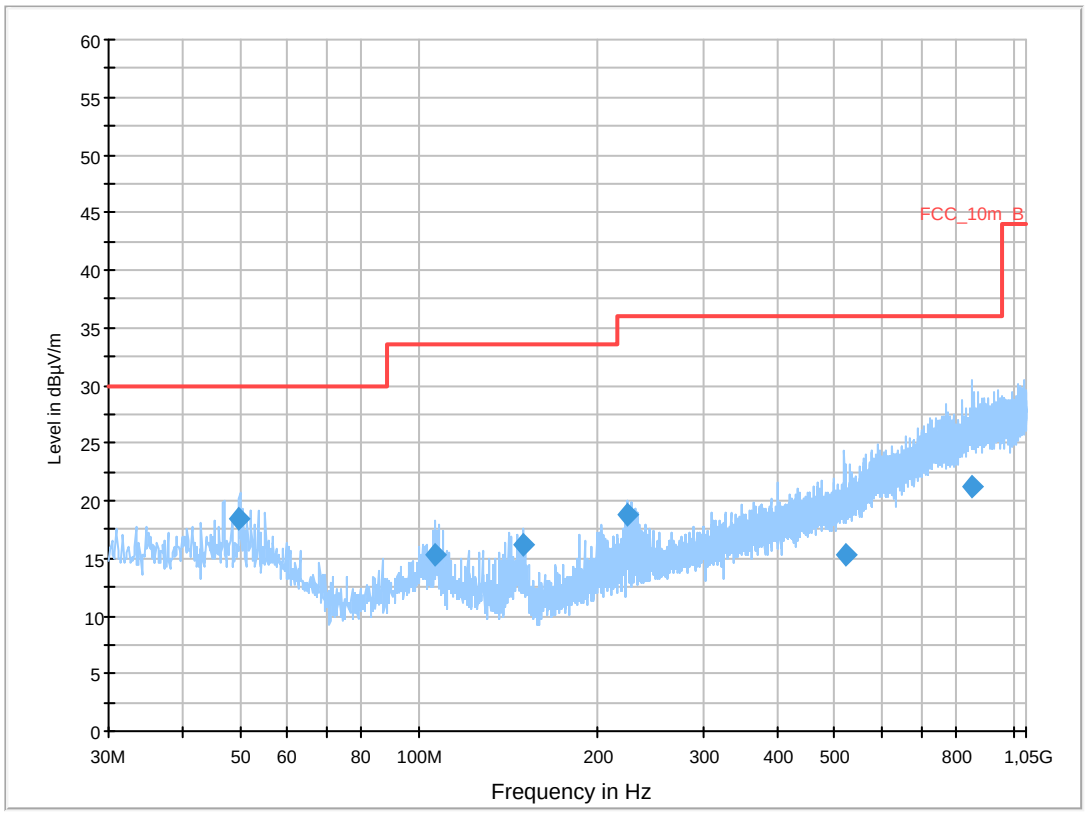
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT20 ch1
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

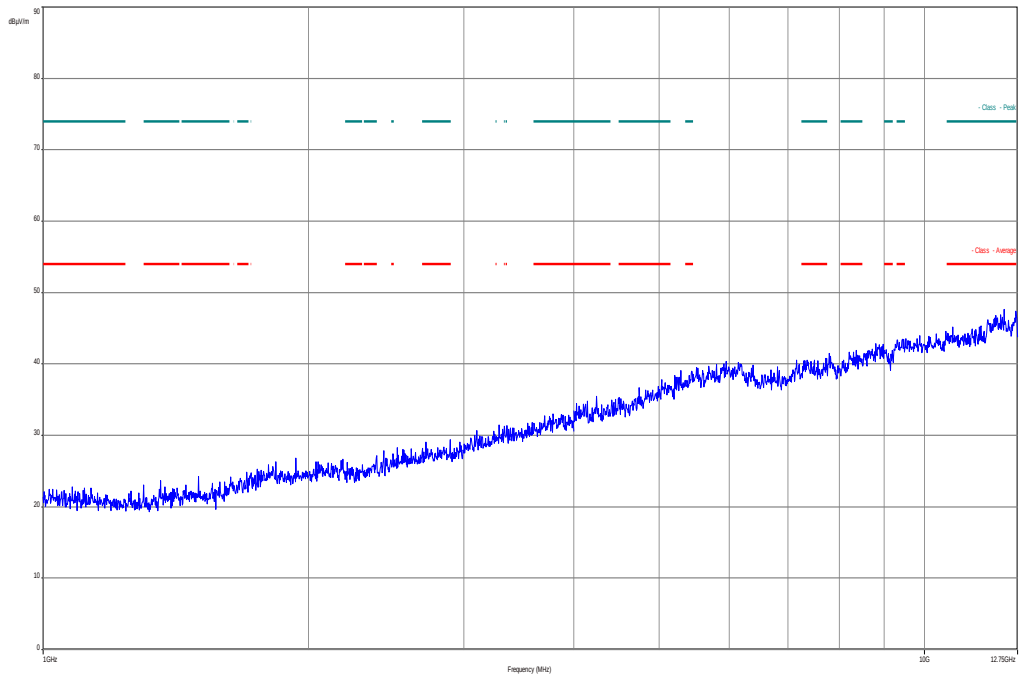
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

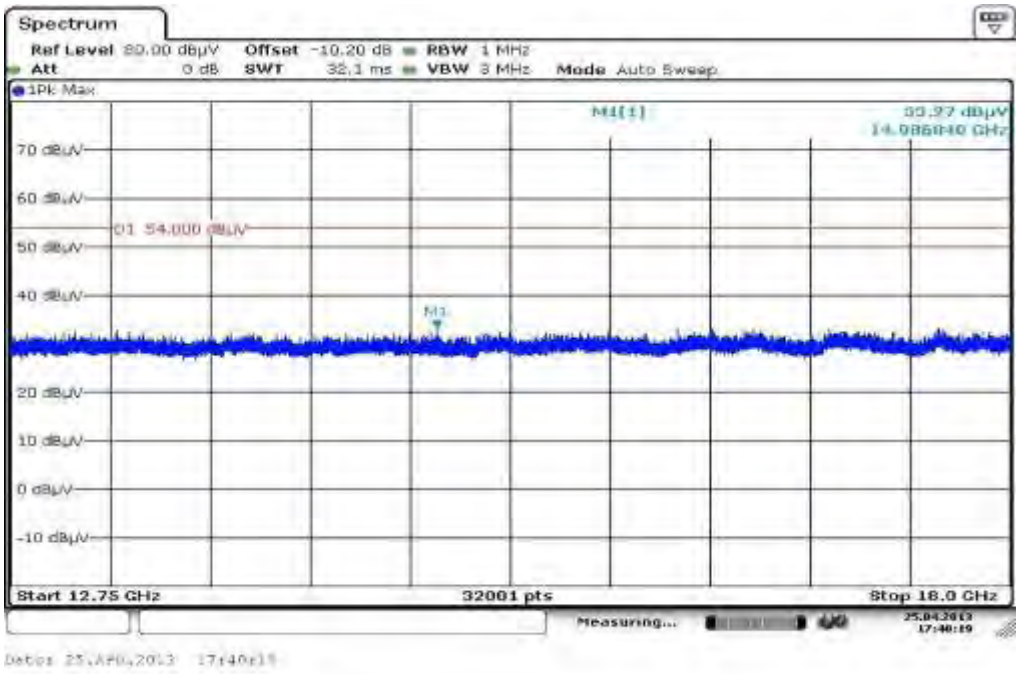
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
49.838100	18.5	1000.0	120.000	98.0	V	2.0	13.4	11.5	30.0	
106.482900	15.2	1000.0	120.000	121.0	V	-5.0	11.3	18.3	33.5	
149.524200	16.2	1000.0	120.000	105.0	V	261.0	8.9	17.3	33.5	
224.276700	18.9	1000.0	120.000	170.0	V	10.0	12.5	17.1	36.0	
520.498950	15.4	1000.0	120.000	170.0	V	280.0	19.0	20.6	36.0	
848.801550	21.3	1000.0	120.000	120.0	H	280.0	24.5	14.7	36.0	

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

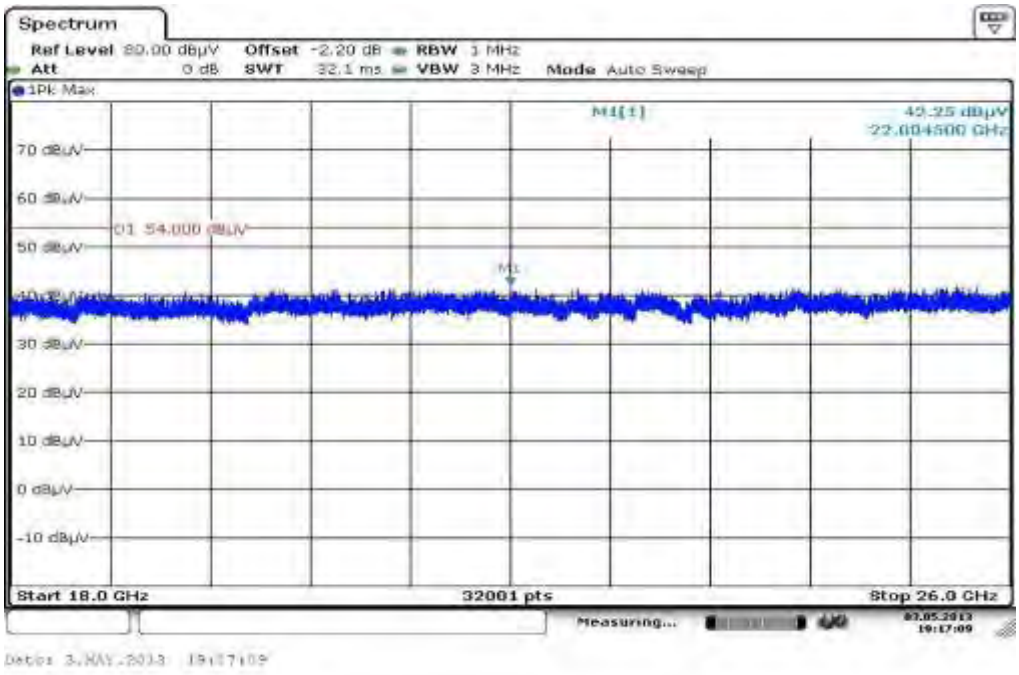


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

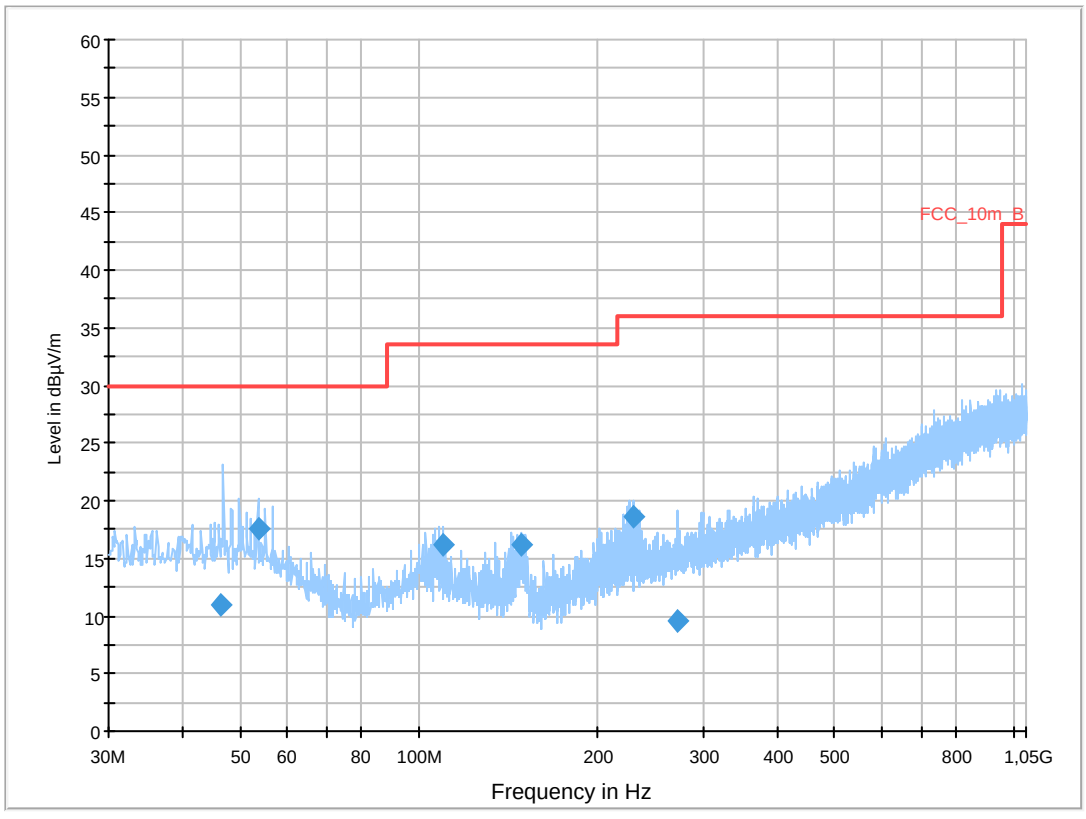
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT20 ch6
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

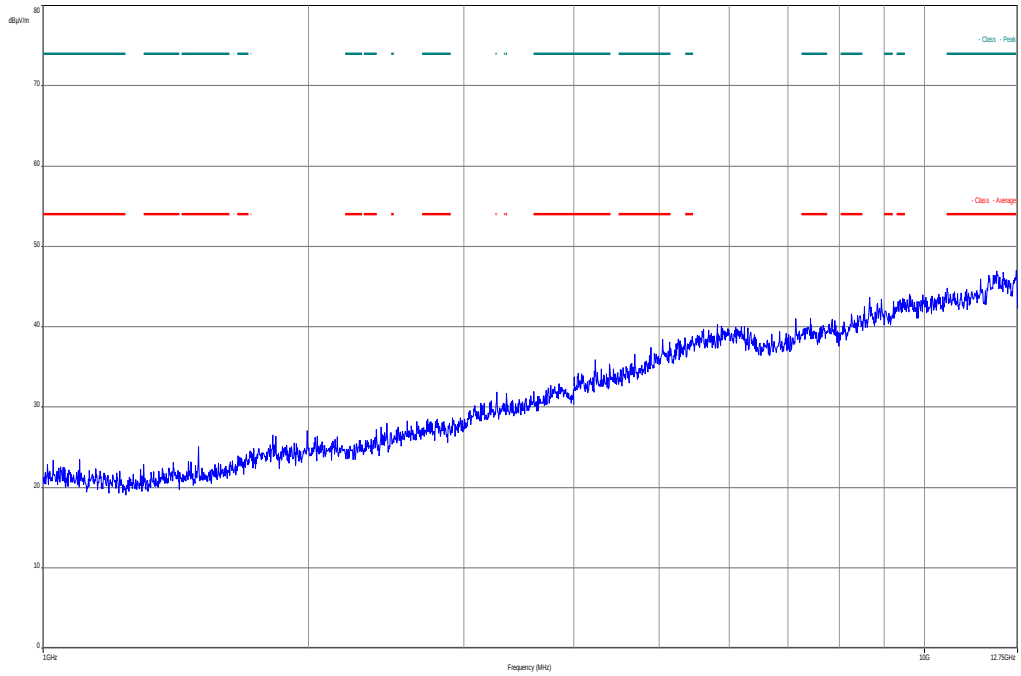
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

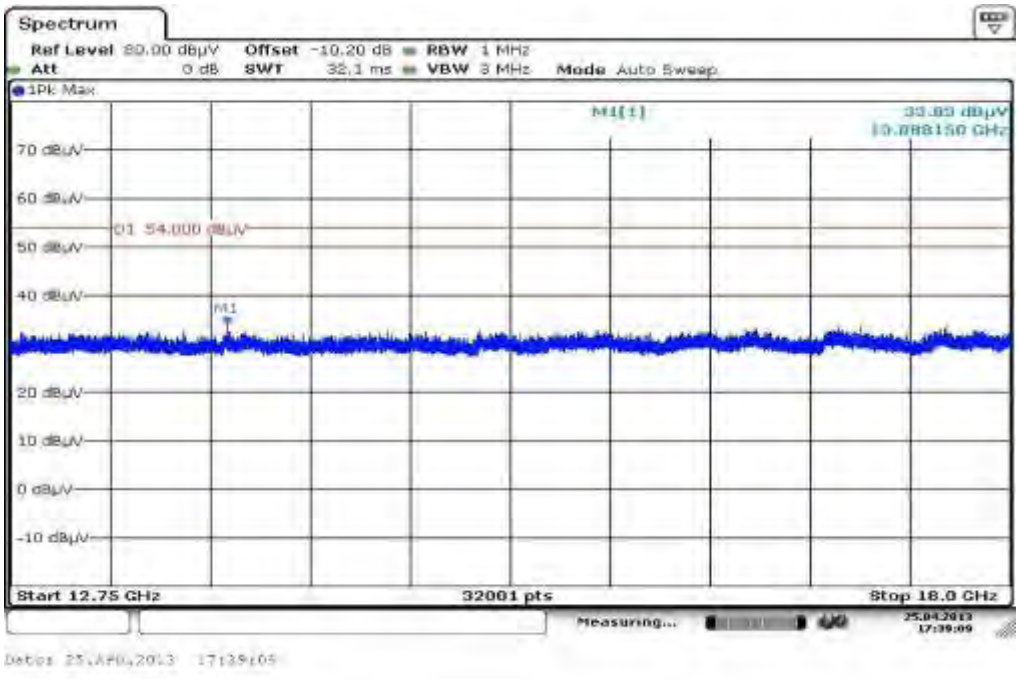
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
46.243650	11.0	1000.0	120.000	98.0	V	182.0	13.3	19.0	30.0	
53.606250	17.6	1000.0	120.000	112.0	V	-10.0	13.0	12.4	30.0	
109.474950	16.2	1000.0	120.000	170.0	V	-10.0	11.1	17.3	33.5	
147.995100	16.2	1000.0	120.000	98.0	V	280.0	8.9	17.3	33.5	
228.788100	18.6	1000.0	120.000	134.0	V	10.0	12.7	17.4	36.0	
271.394550	9.5	1000.0	120.000	170.0	H	280.0	13.8	26.5	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

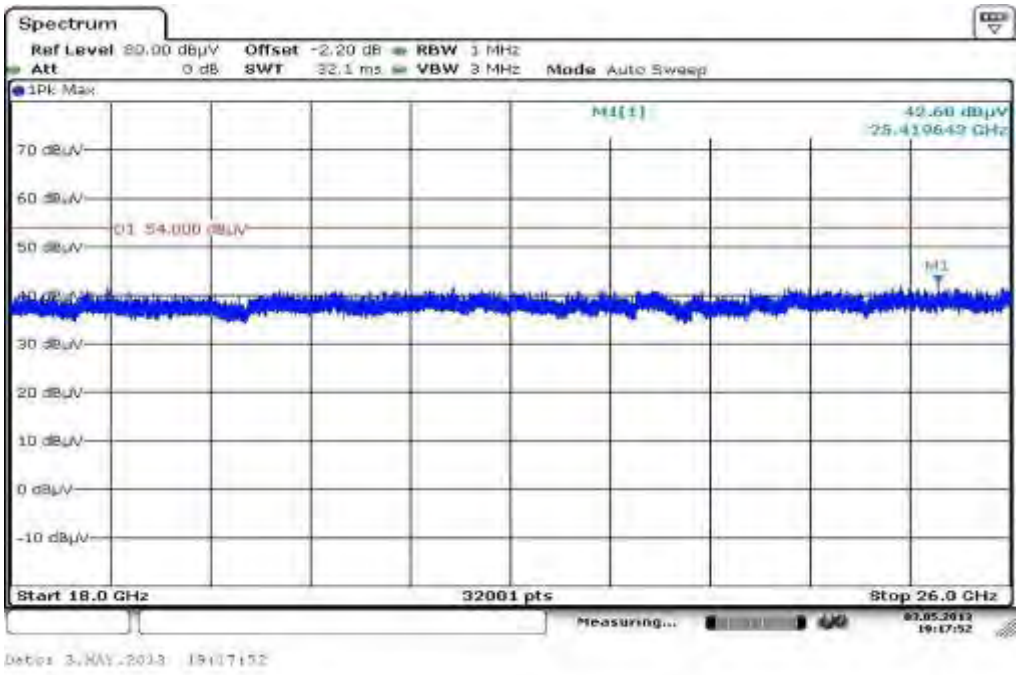


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

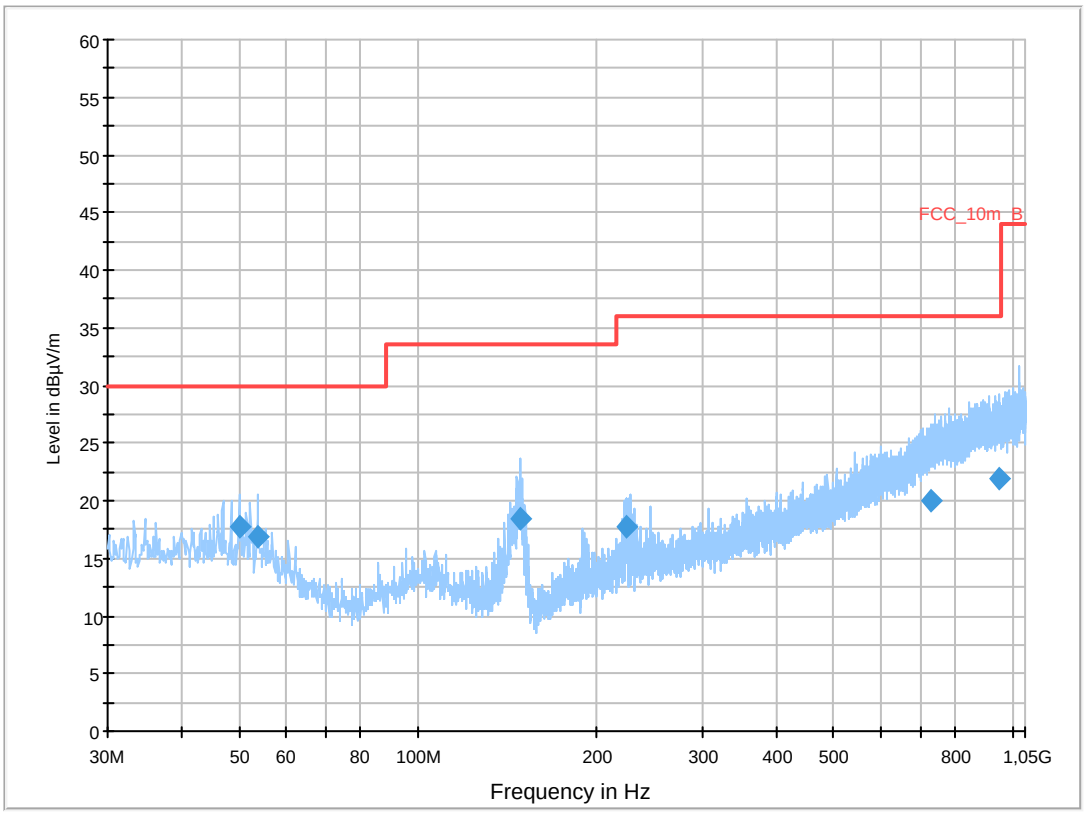
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT20 ch11
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

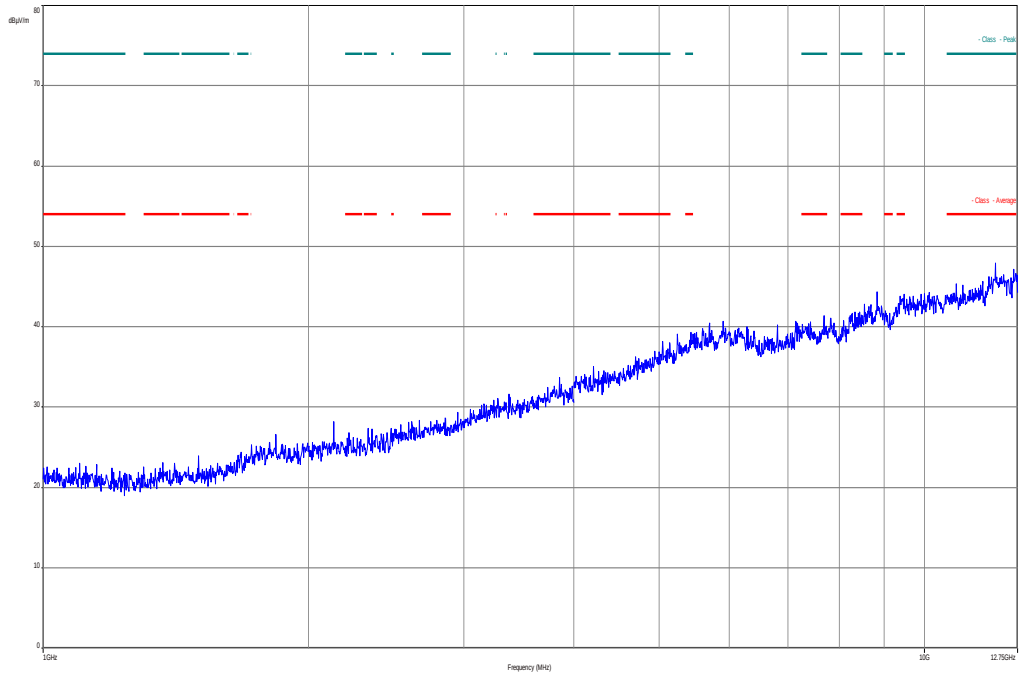
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

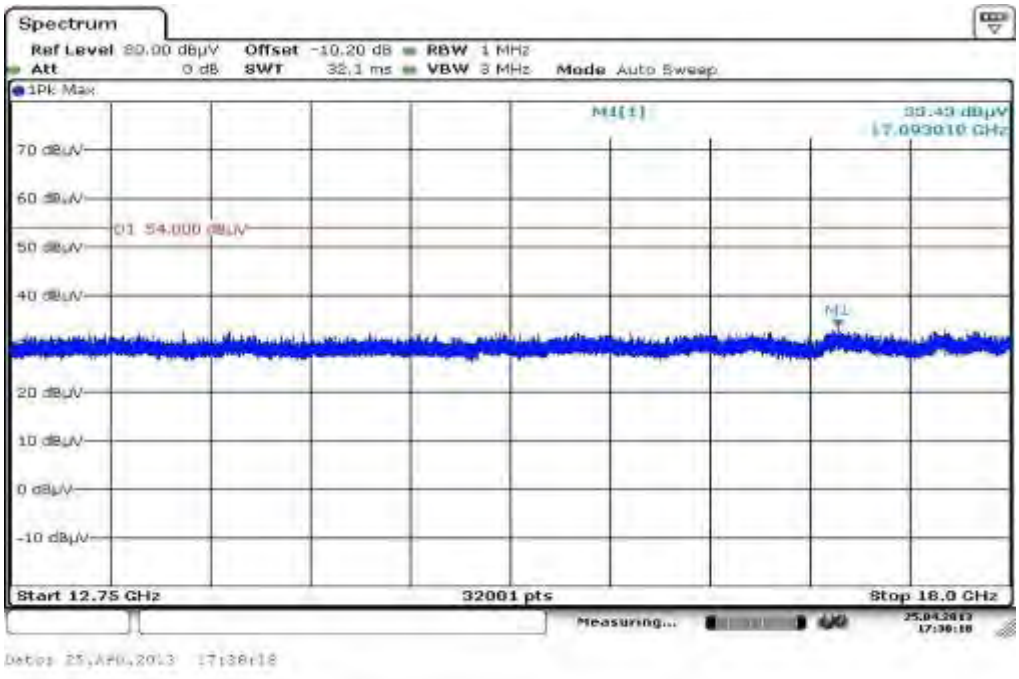
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
49.886100	17.8	1000.0	120.000	98.0	V	-5.0	13.4	12.2	30.0	
53.666700	16.9	1000.0	120.000	170.0	V	100.0	13.0	13.1	30.0	
148.159650	18.5	1000.0	120.000	170.0	V	0.0	8.9	15.0	33.5	
224.514450	17.7	1000.0	120.000	170.0	H	-10.0	12.5	18.3	36.0	
730.710900	19.9	1000.0	120.000	170.0	H	88.0	23.2	16.1	36.0	
947.430900	21.9	1000.0	120.000	120.0	H	-5.0	25.3	14.1	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

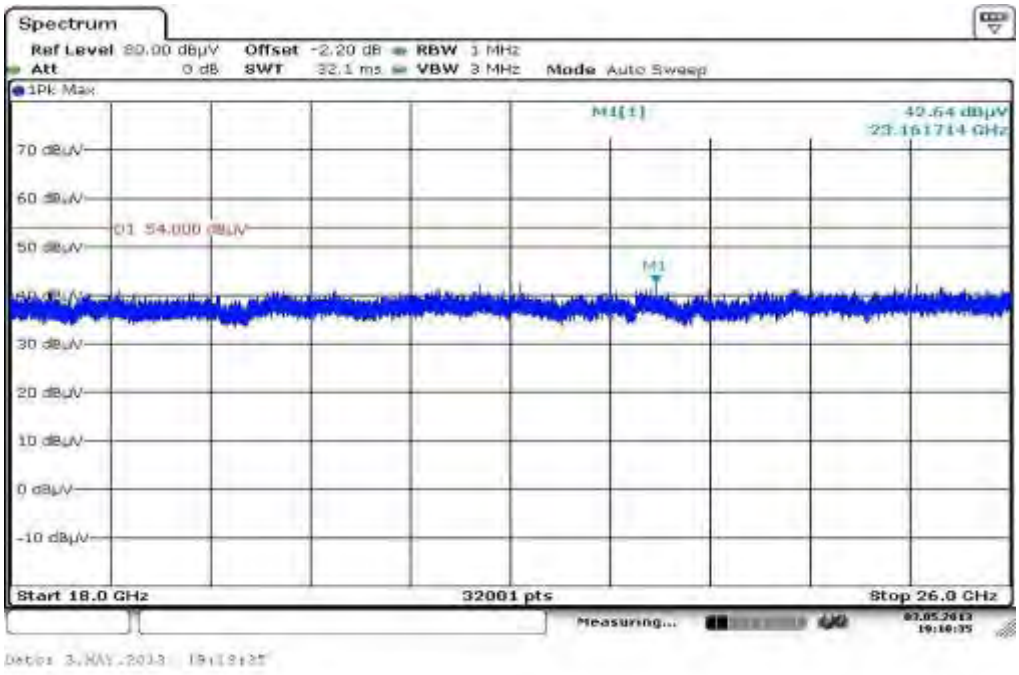


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / n – mode HT40 (ANT M3002-66494)

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

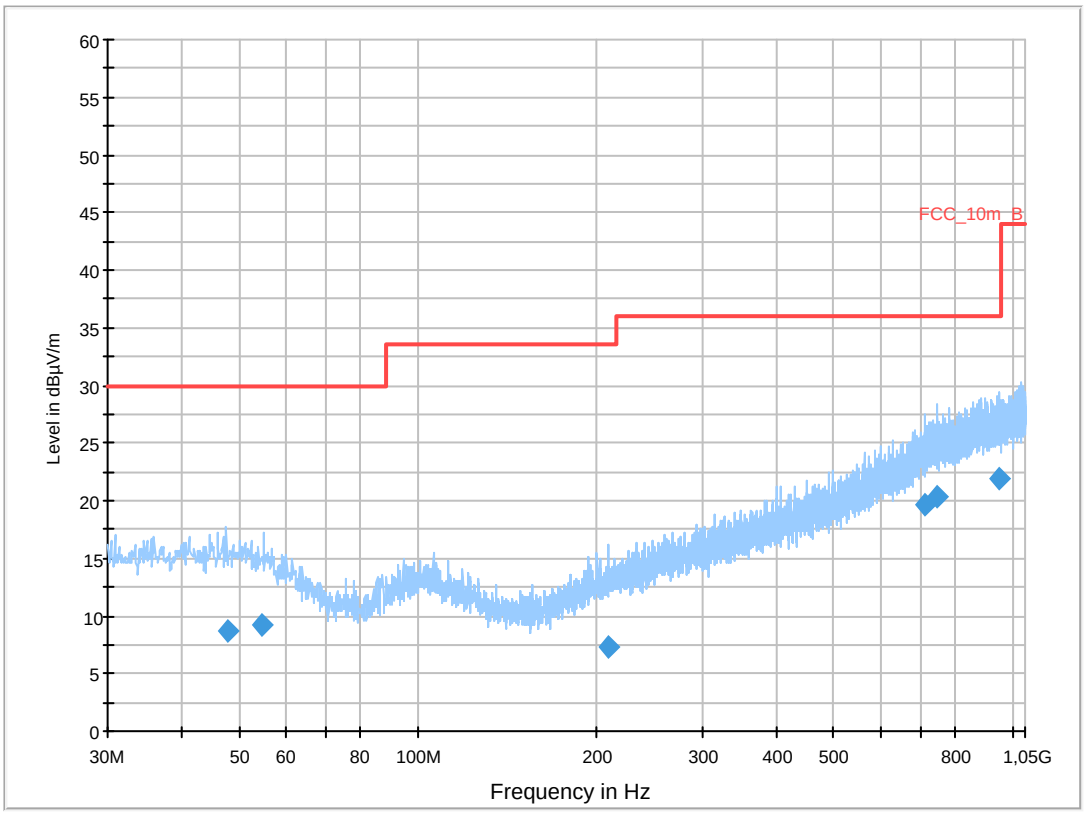
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT 40 tx @2412MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

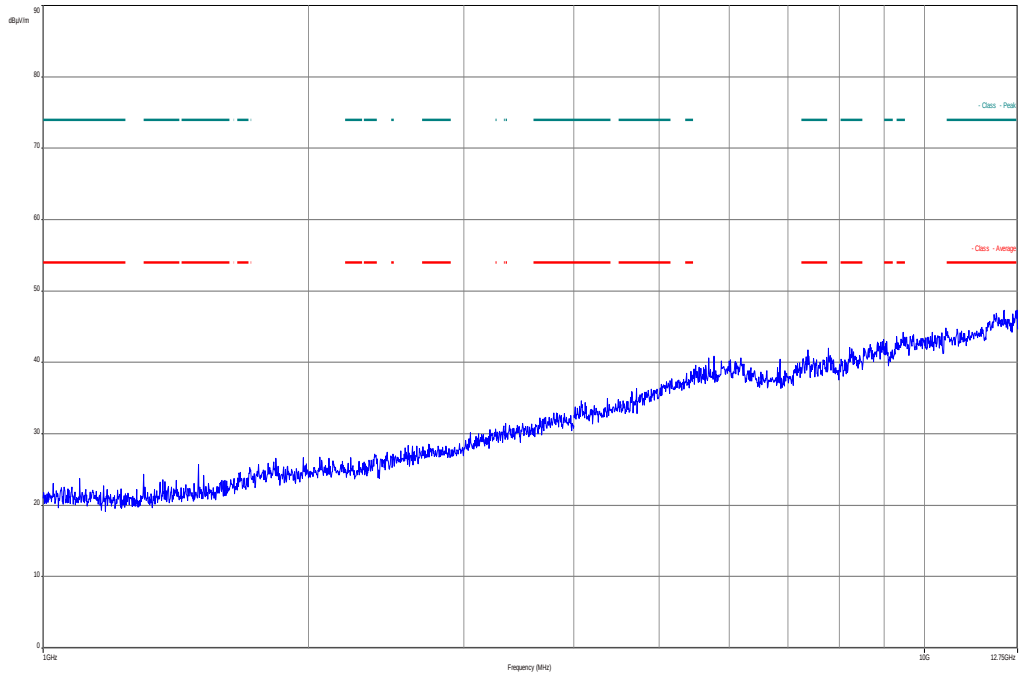
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

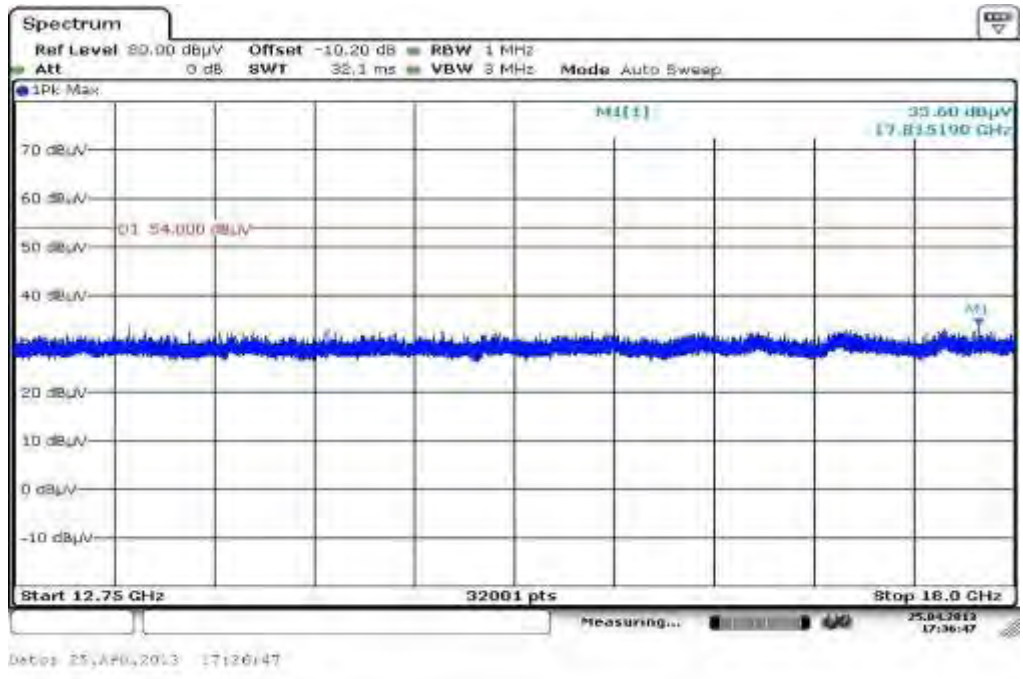
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
47.811900	8.7	1000.0	120.000	120.0	H	182.0	13.3	21.3	30.0	
54.513600	9.3	1000.0	120.000	170.0	V	10.0	12.9	20.7	30.0	
208.800450	7.4	1000.0	120.000	170.0	H	261.0	12.0	26.1	33.5	
714.260250	19.6	1000.0	120.000	170.0	H	81.0	22.8	16.4	36.0	
748.356600	20.3	1000.0	120.000	170.0	H	-9.0	23.6	15.7	36.0	
947.716350	21.9	1000.0	120.000	170.0	V	-2.0	25.3	14.1	36.0	

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

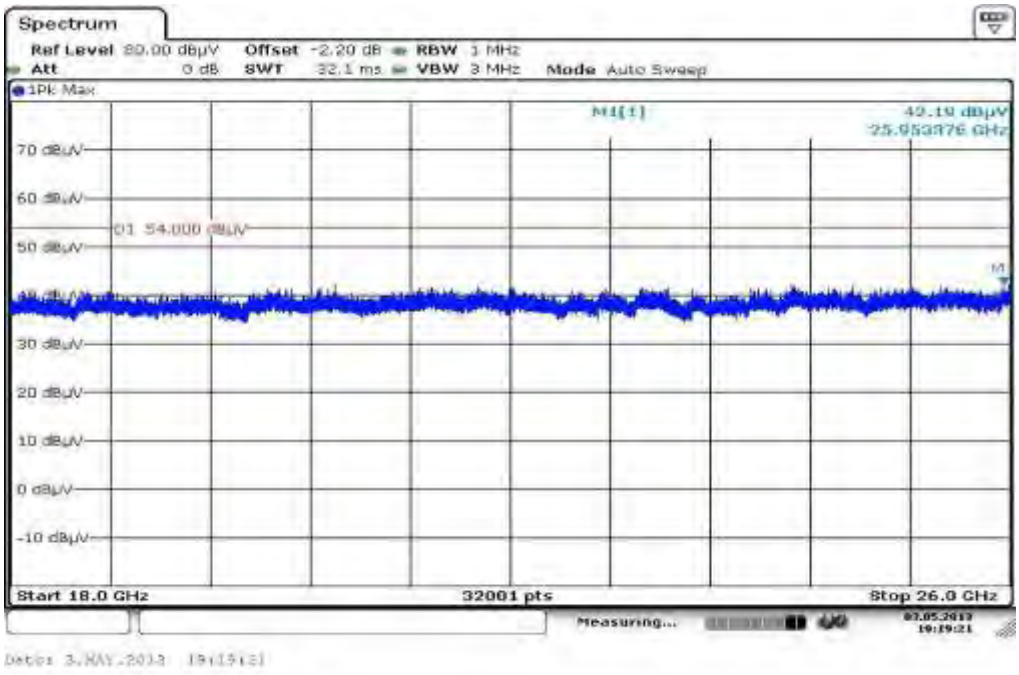


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

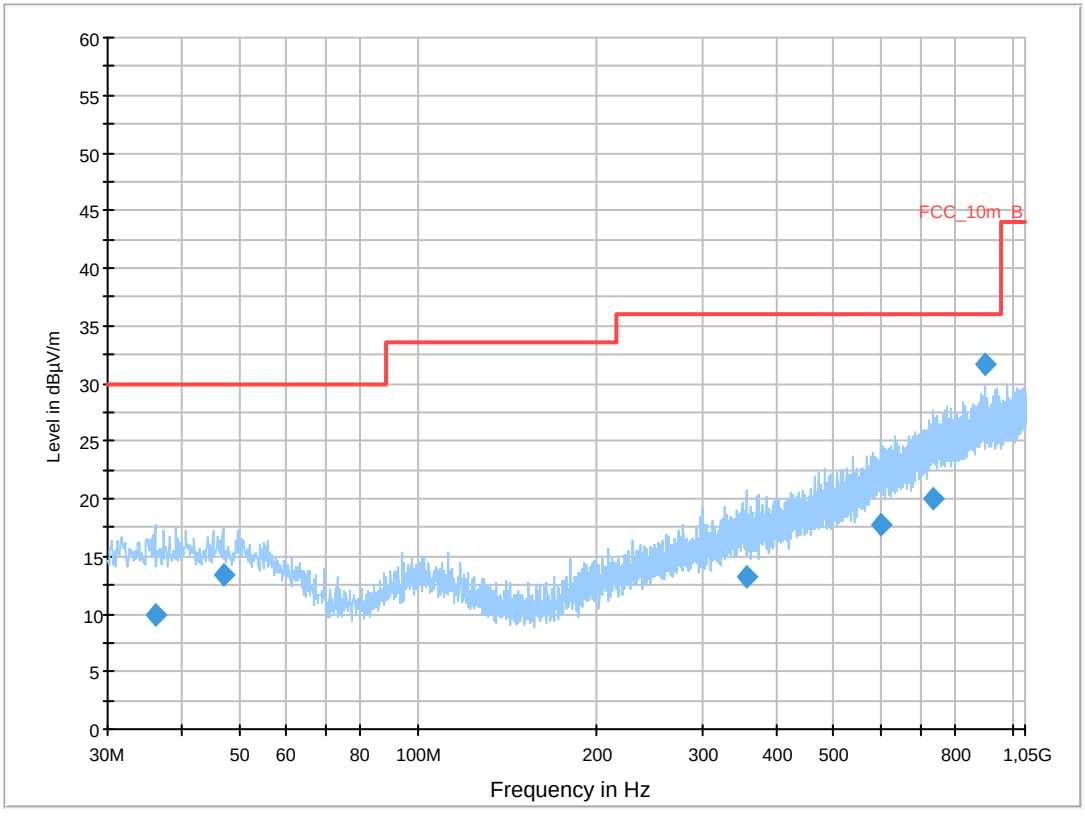
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT 40 tx @2442MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

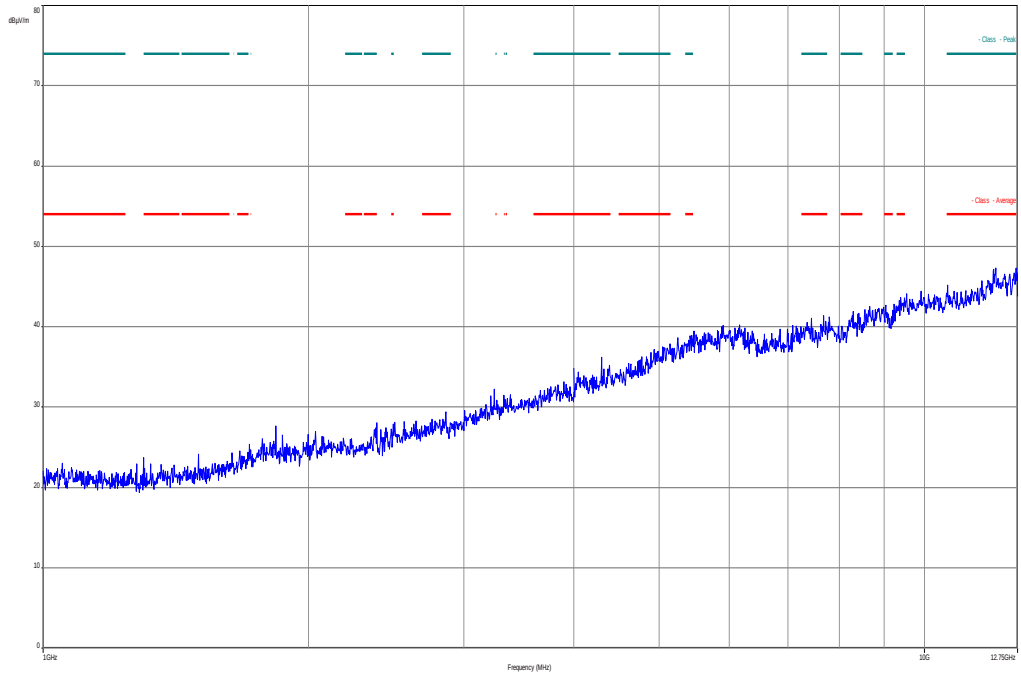
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

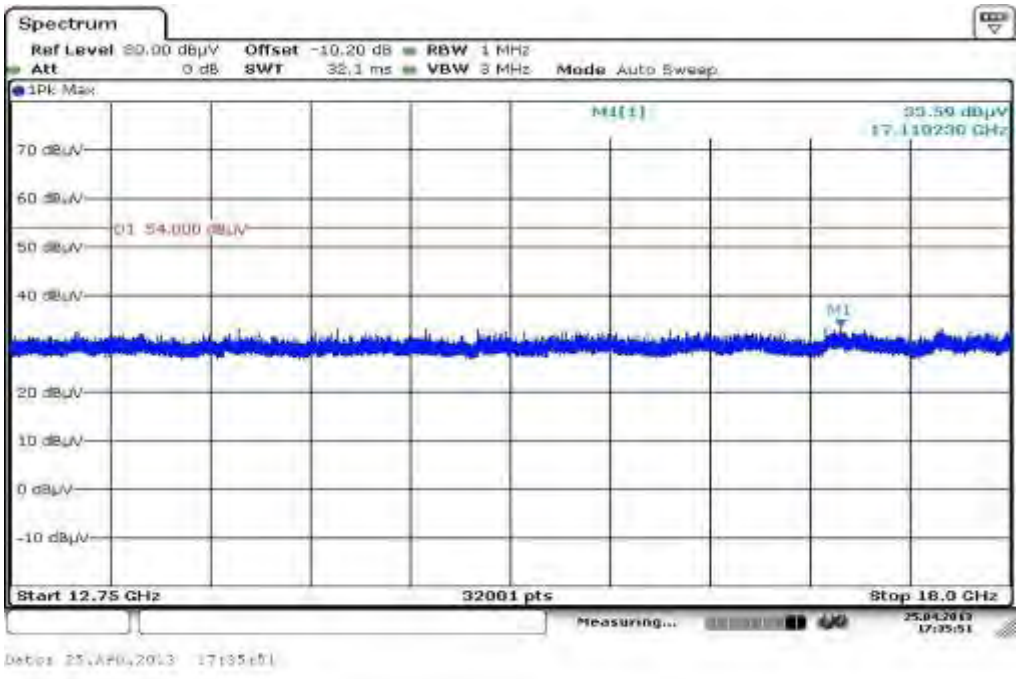
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
36.263250	9.8	1000.0	120.000	132.0	V	175.0	13.1	20.2	30.0	
46.977000	13.4	1000.0	120.000	104.0	V	10.0	13.3	16.6	30.0	
357.922650	13.3	1000.0	120.000	170.0	V	273.0	16.2	22.7	36.0	
599.929050	17.8	1000.0	120.000	105.0	V	100.0	20.8	18.2	36.0	
735.087300	20.1	1000.0	120.000	170.0	V	81.0	23.3	15.9	36.0	
897.426000	31.7	1000.0	120.000	170.0	V	90.0	25.2	4.3	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

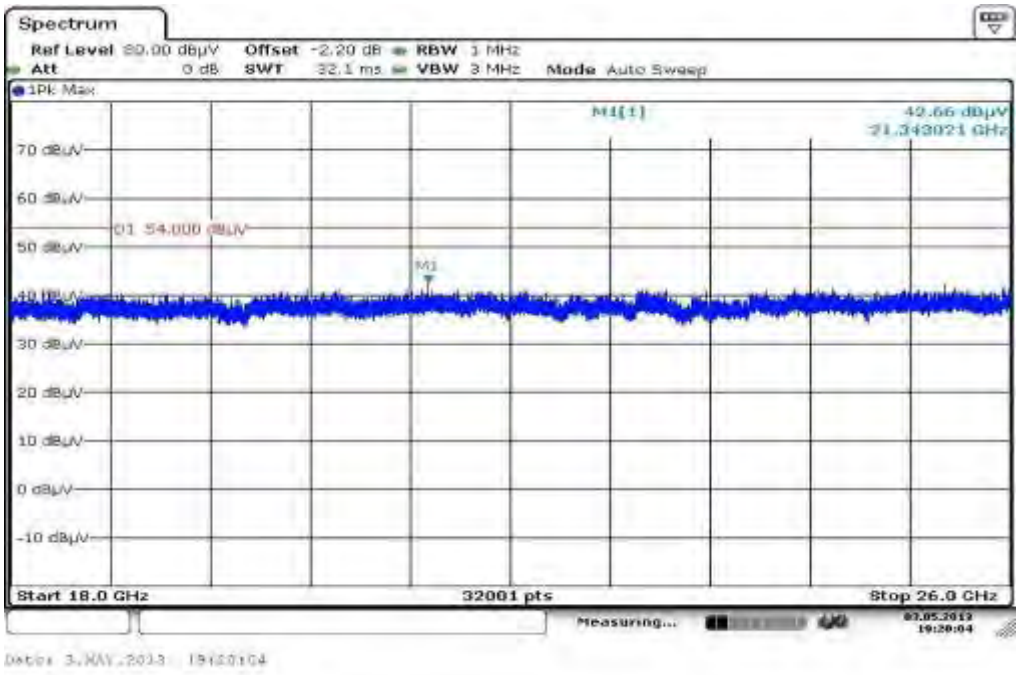


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

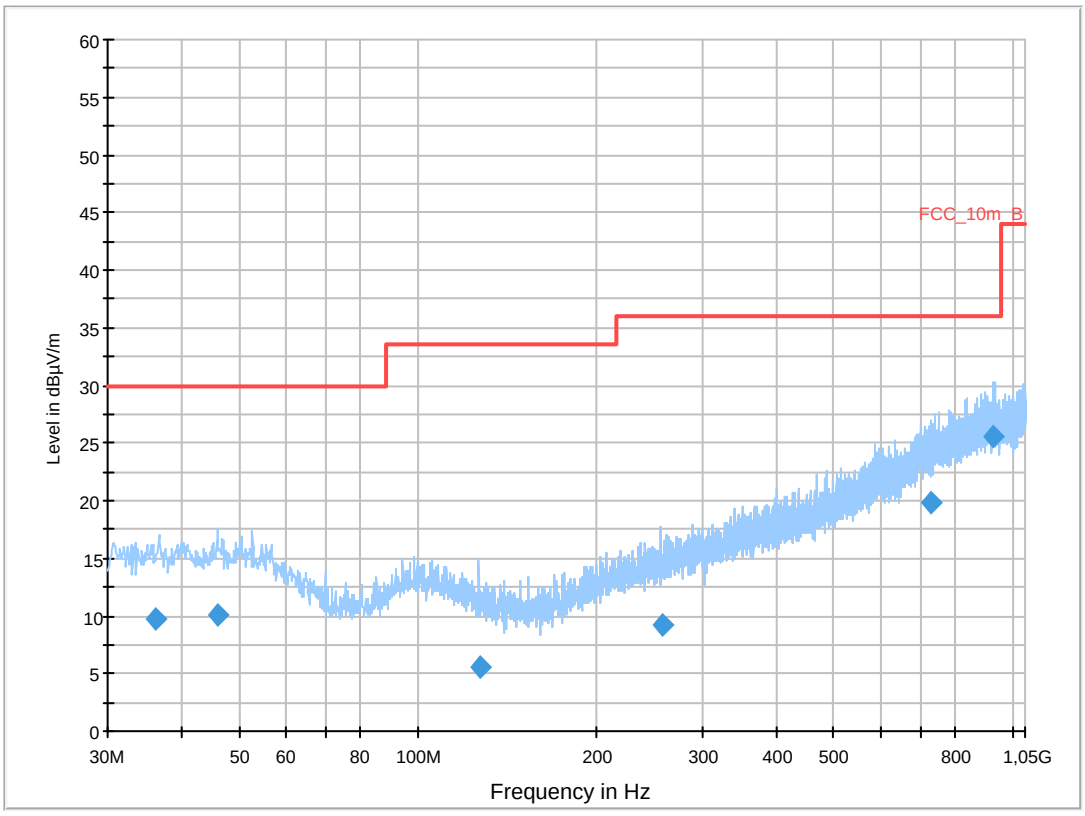
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT 40 tx @2462MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

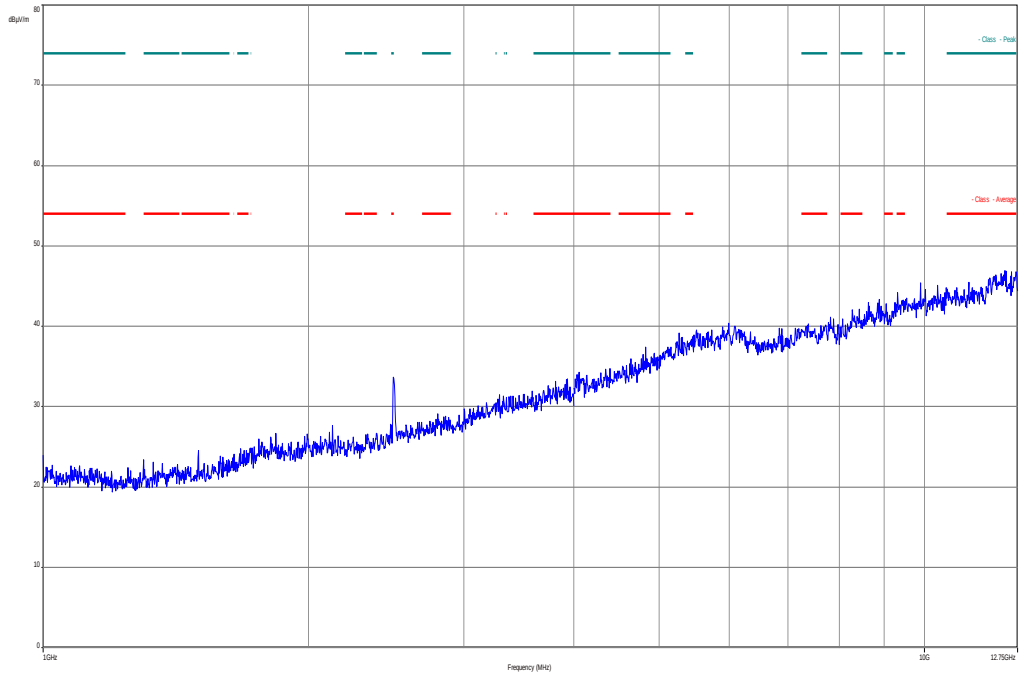
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

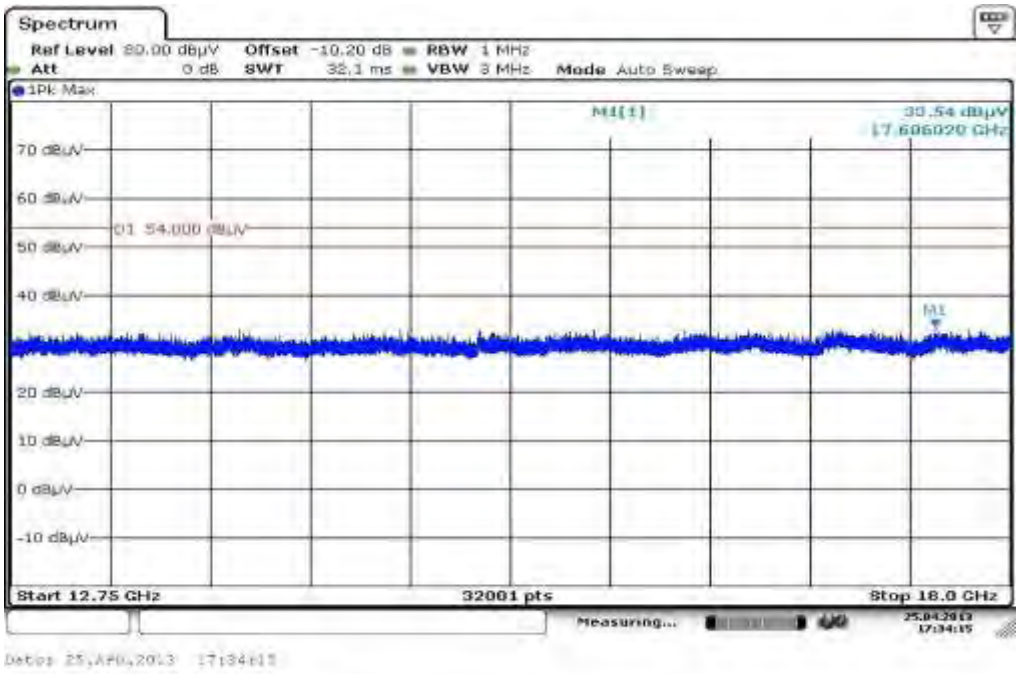
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
36.256800	9.8	1000.0	120.000	170.0	H	92.0	13.1	20.2	30.0	
45.808350	10.0	1000.0	120.000	98.0	V	-10.0	13.3	20.0	30.0	
126.803700	5.6	1000.0	120.000	111.0	V	92.0	9.7	27.9	33.5	
256.633200	9.2	1000.0	120.000	154.0	V	80.0	13.5	26.8	36.0	
727.590000	19.9	1000.0	120.000	104.0	V	92.0	23.1	16.1	36.0	
927.464250	25.6	1000.0	120.000	120.0	V	81.0	25.3	10.4	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

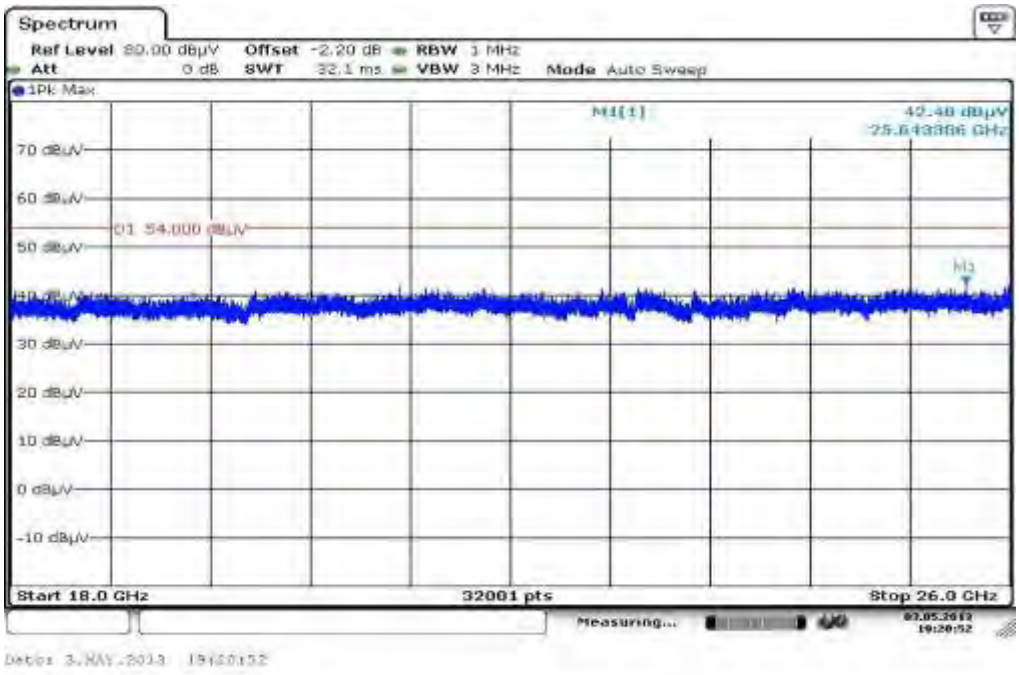


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: DSSS / b – mode (ANT 453564154611)

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

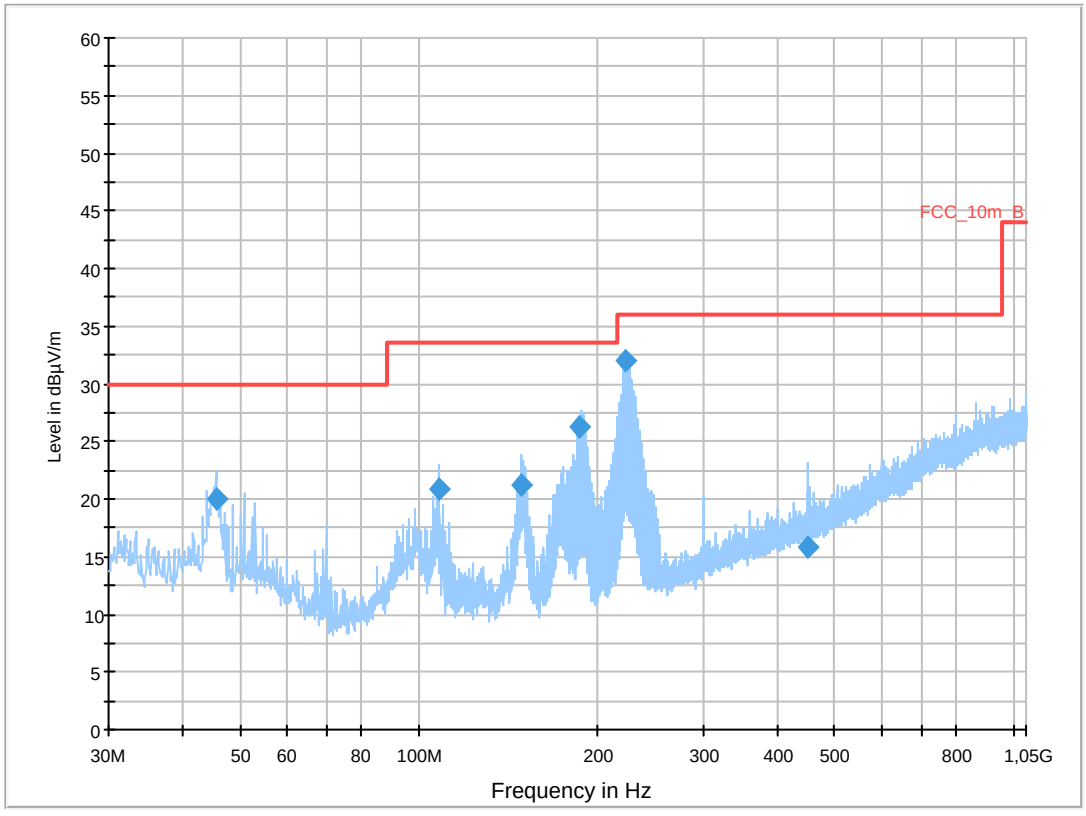
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan b-mode ch1
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

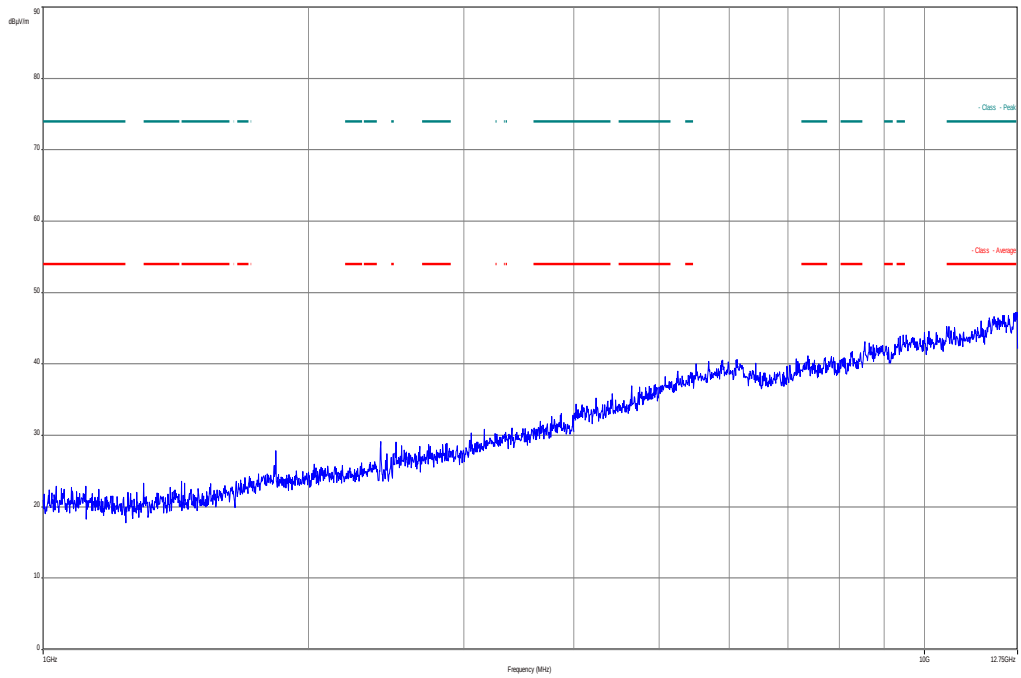
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

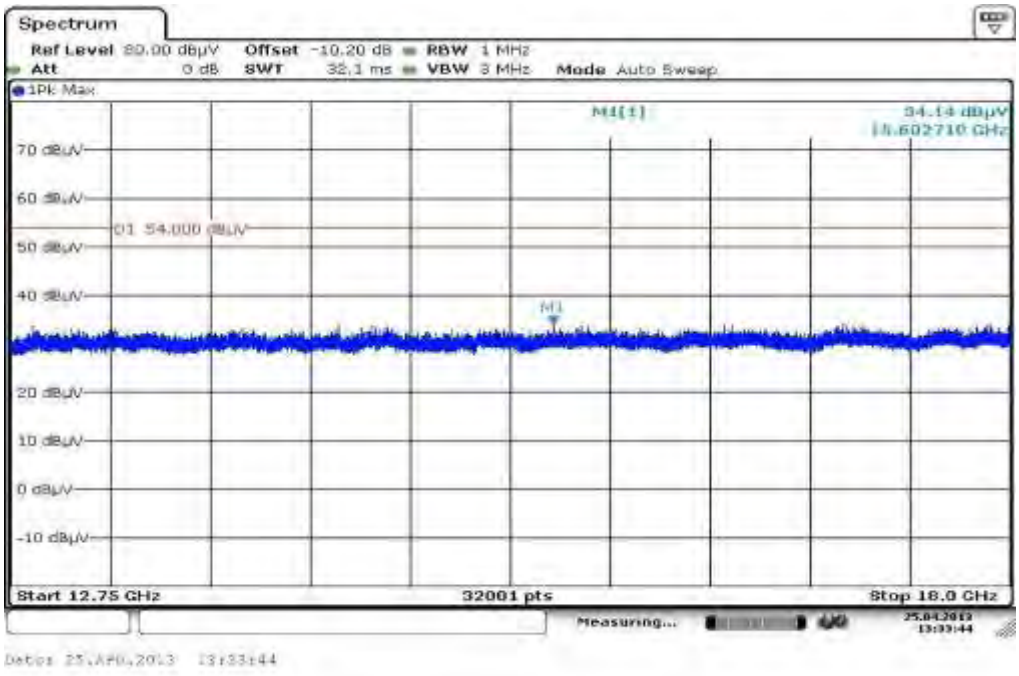
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.480000	20.1	1000.0	120.000	98.0	V	283.0	13.3	9.9	30.0	
107.640000	20.8	1000.0	120.000	121.0	V	192.0	11.2	12.7	33.5	
148.560000	21.2	1000.0	120.000	98.0	V	345.0	8.9	12.3	33.5	
186.480000	26.3	1000.0	120.000	98.0	V	119.0	10.9	7.2	33.5	
222.840000	32.0	1000.0	120.000	159.0	V	35.0	12.5	4.0	36.0	
449.520000	15.8	1000.0	120.000	98.0	V	42.0	17.7	20.2	36.0	

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

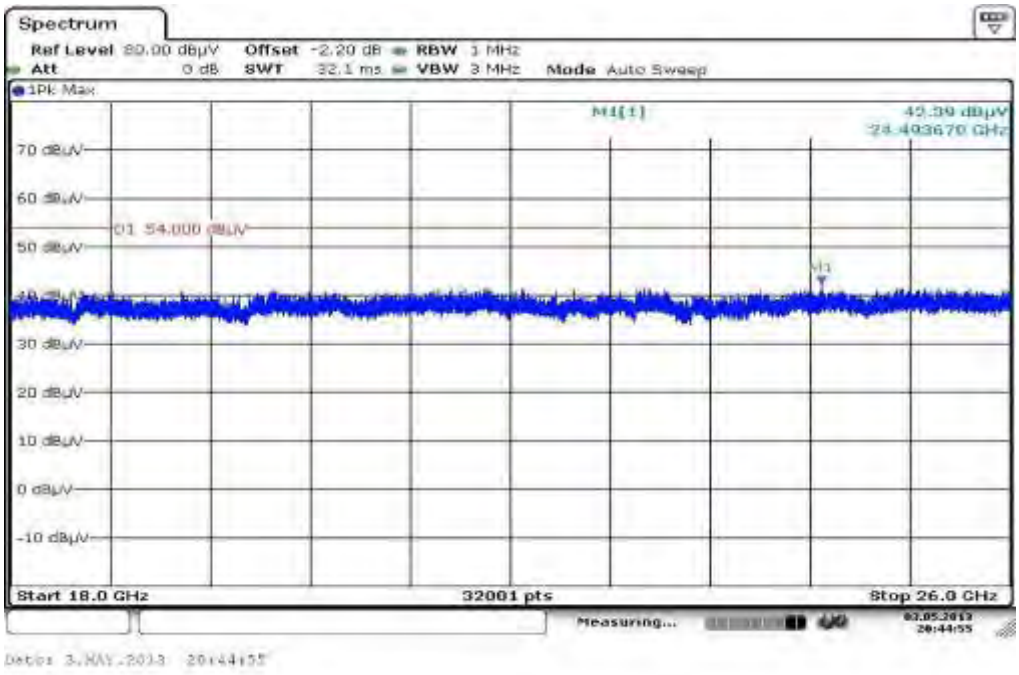


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

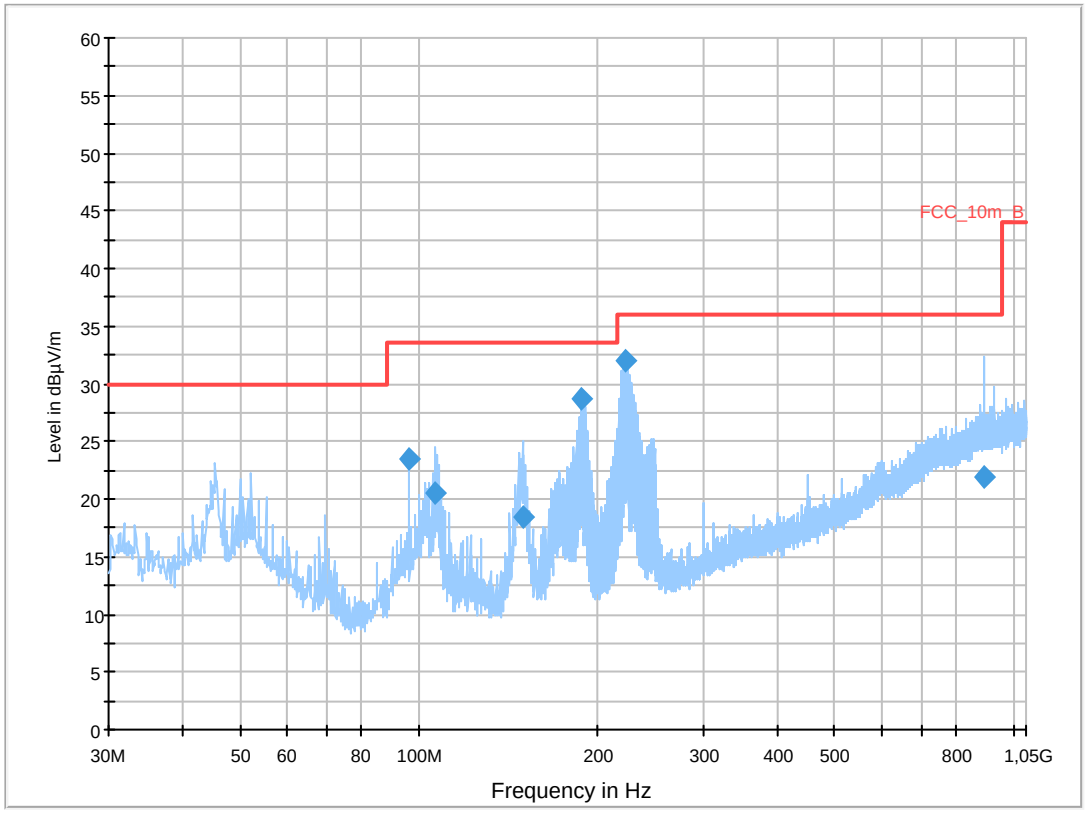
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan b-mode ch6
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

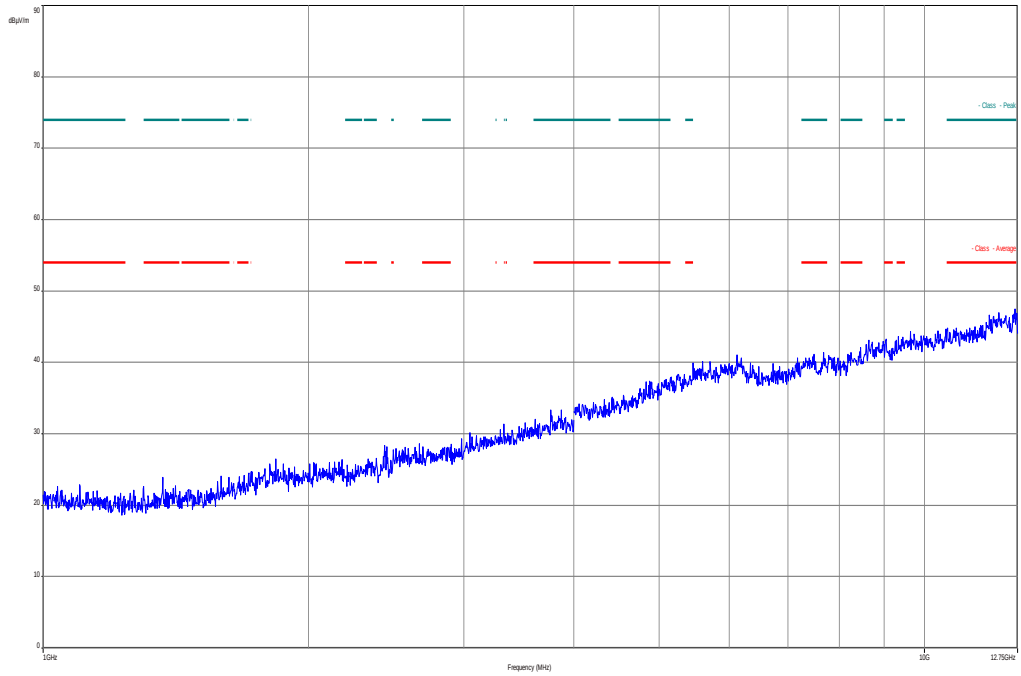
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

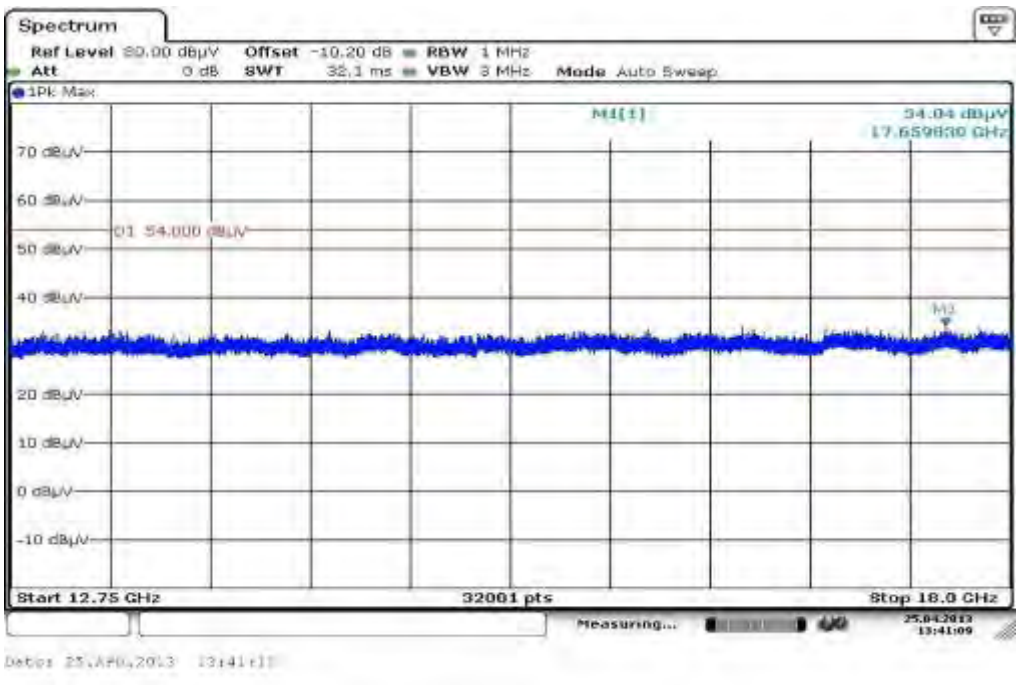
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
96.000000	23.4	1000.0	120.000	120.0	V	305.0	11.4	10.1	33.5	
106.680000	20.5	1000.0	120.000	159.0	V	163.0	11.3	13.0	33.5	
149.040000	18.4	1000.0	120.000	120.0	V	353.0	8.9	15.1	33.5	
187.560000	28.7	1000.0	120.000	98.0	V	41.0	10.9	4.8	33.5	
221.640000	31.9	1000.0	120.000	149.0	V	0.0	12.4	4.1	36.0	
890.640000	21.9	1000.0	120.000	172.0	V	163.0	25.1	14.1	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

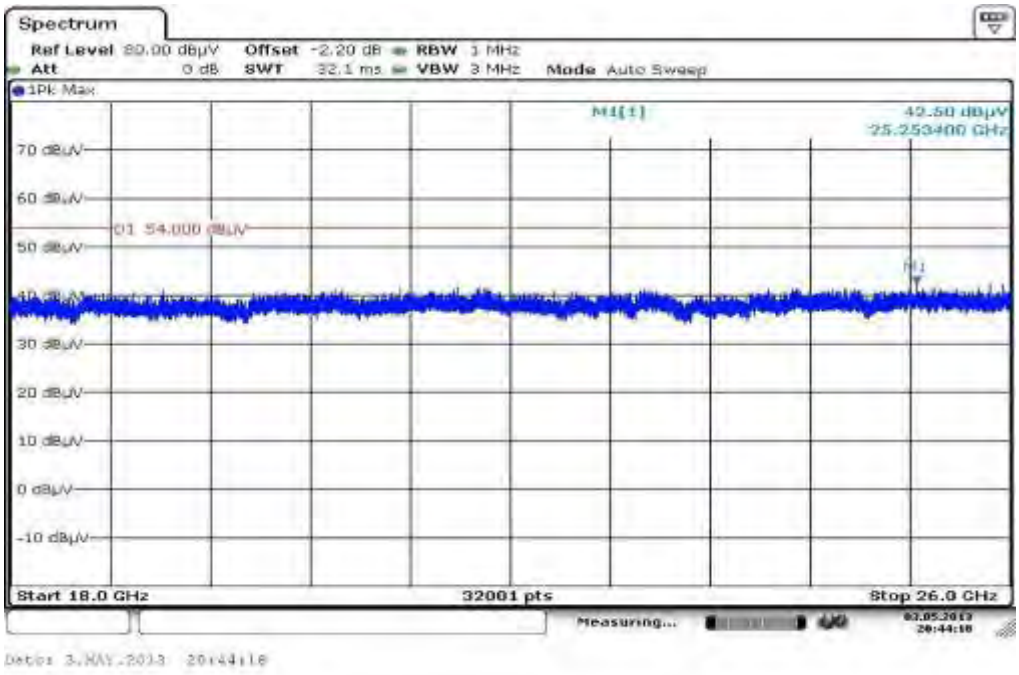


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

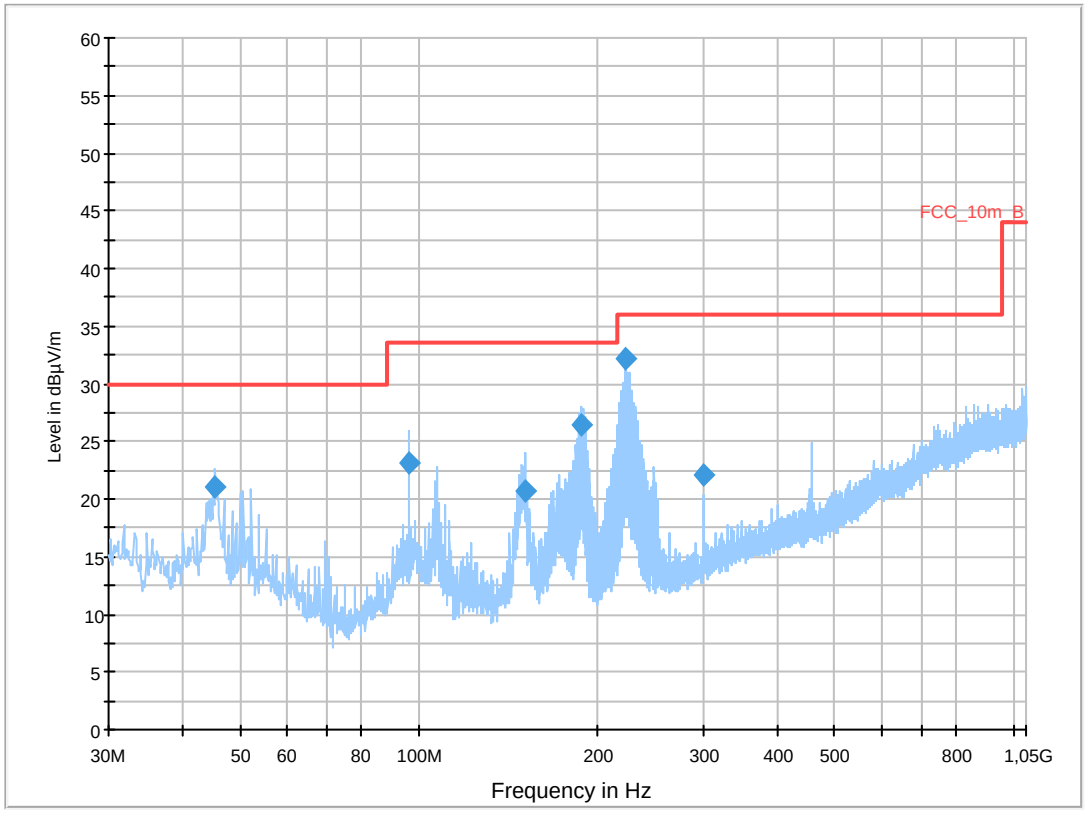
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan b-mode ch11
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

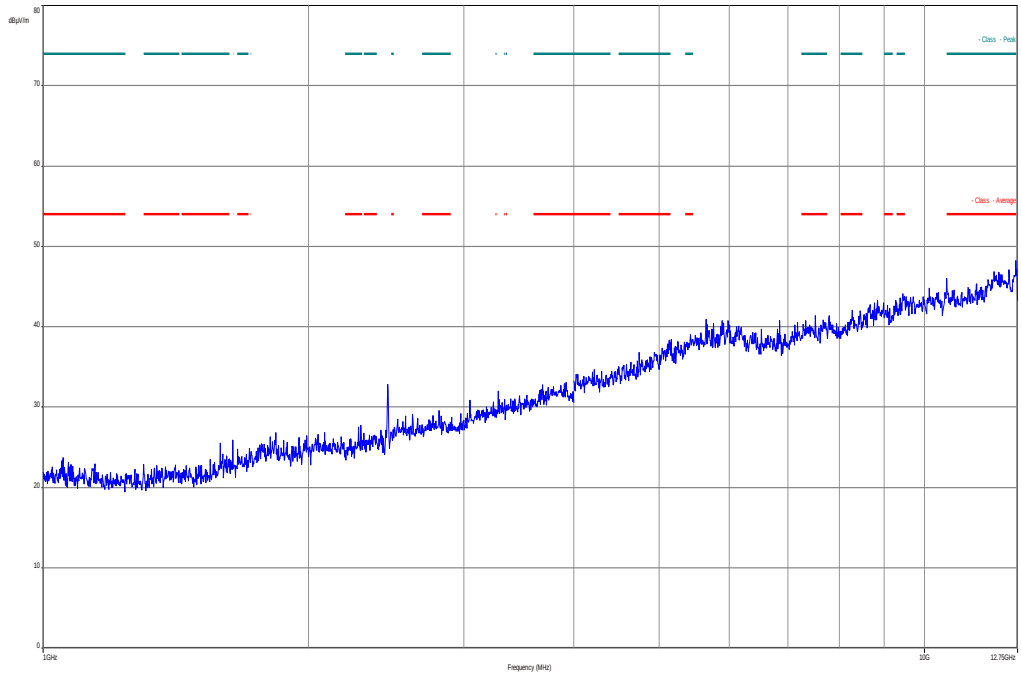
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

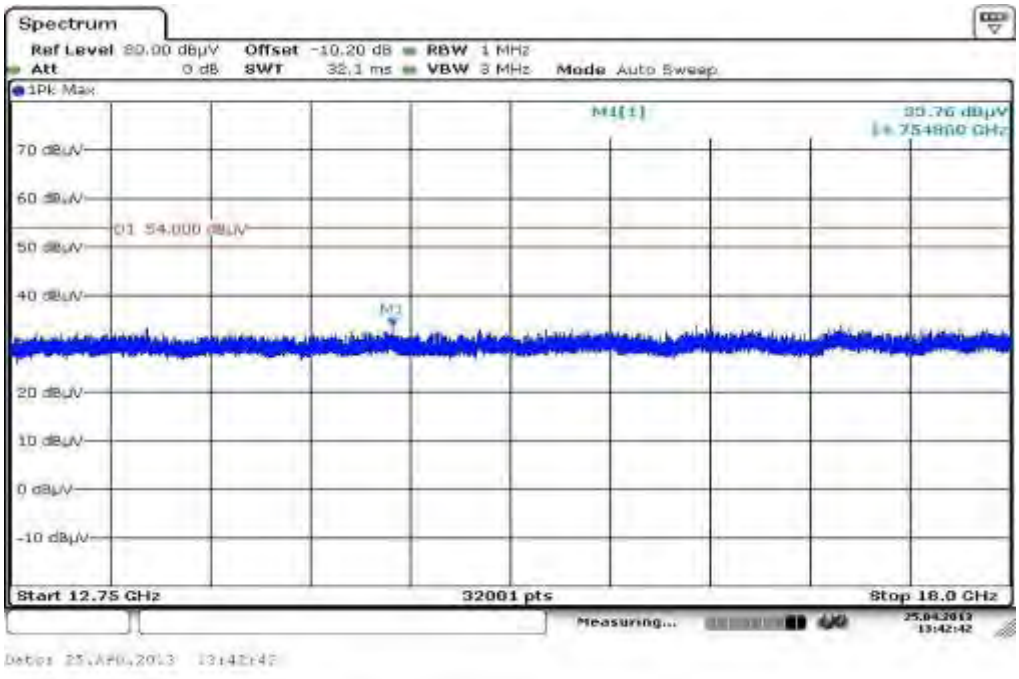
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.360000	21.1	1000.0	120.000	105.0	V	229.0	13.3	8.9	30.0	
96.000000	23.1	1000.0	120.000	98.0	V	0.0	11.4	10.4	33.5	
150.480000	20.6	1000.0	120.000	132.0	V	0.0	8.9	12.9	33.5	
187.560000	26.4	1000.0	120.000	200.0	V	49.0	10.9	7.1	33.5	
223.080000	32.3	1000.0	120.000	172.0	V	42.0	12.5	3.8	36.0	
300.000000	22.1	1000.0	120.000	270.0	H	0.0	14.5	13.9	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

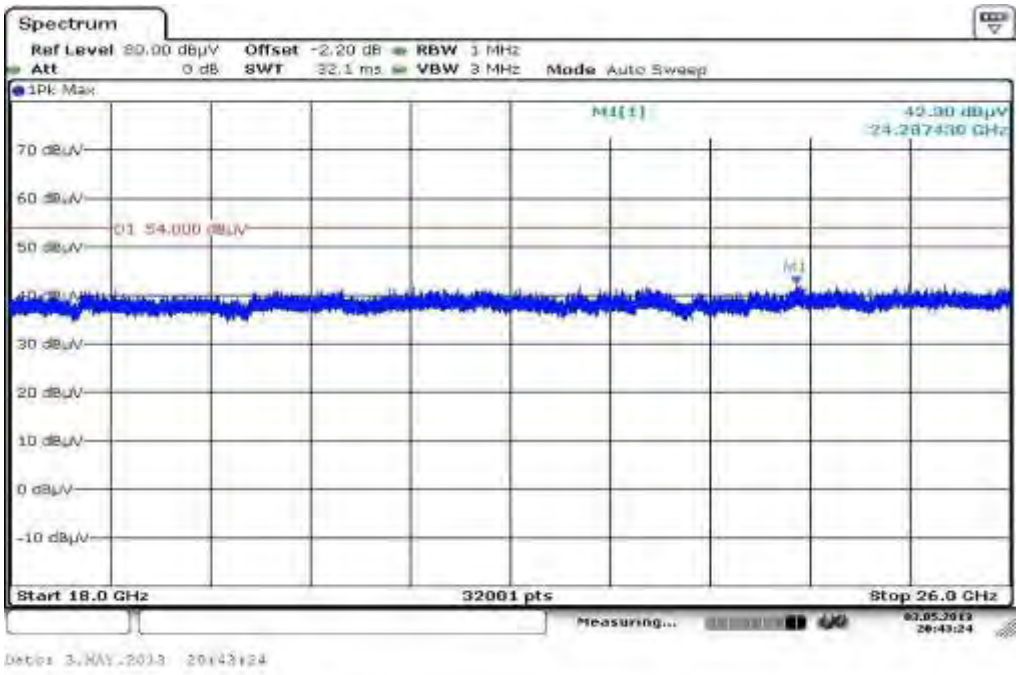


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / g – mode (ANT 453564154611)

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

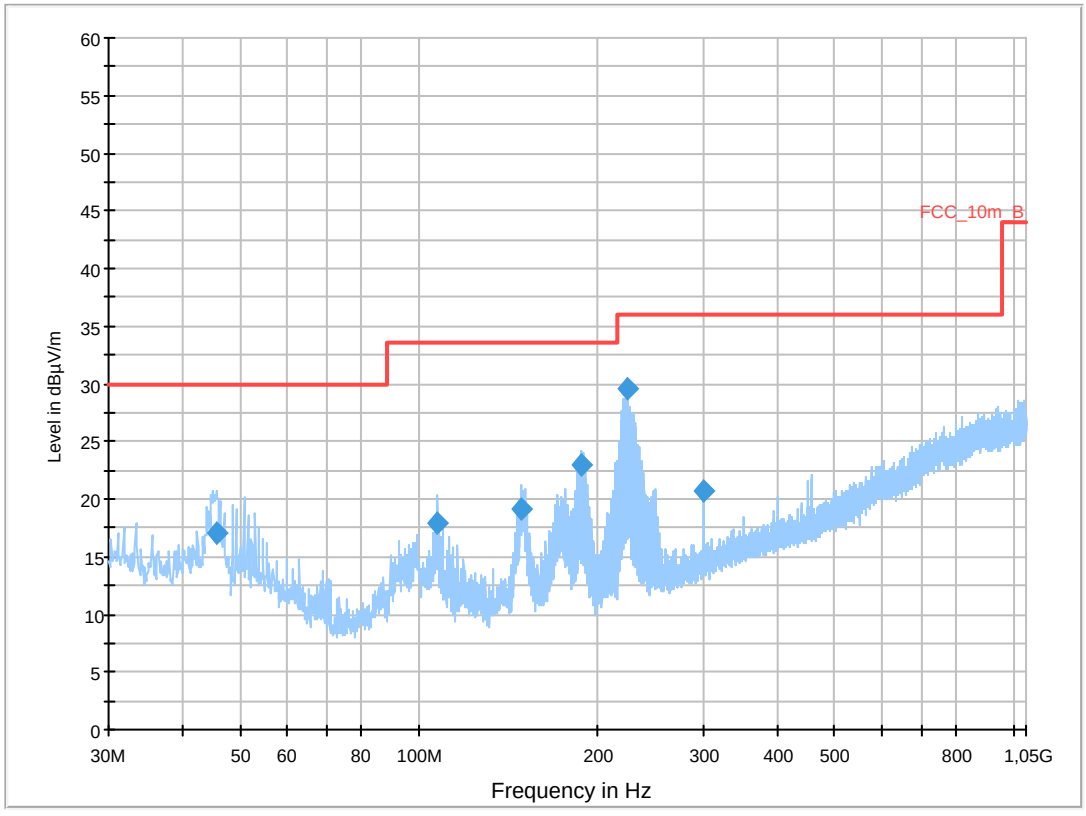
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan g-mode ch1
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

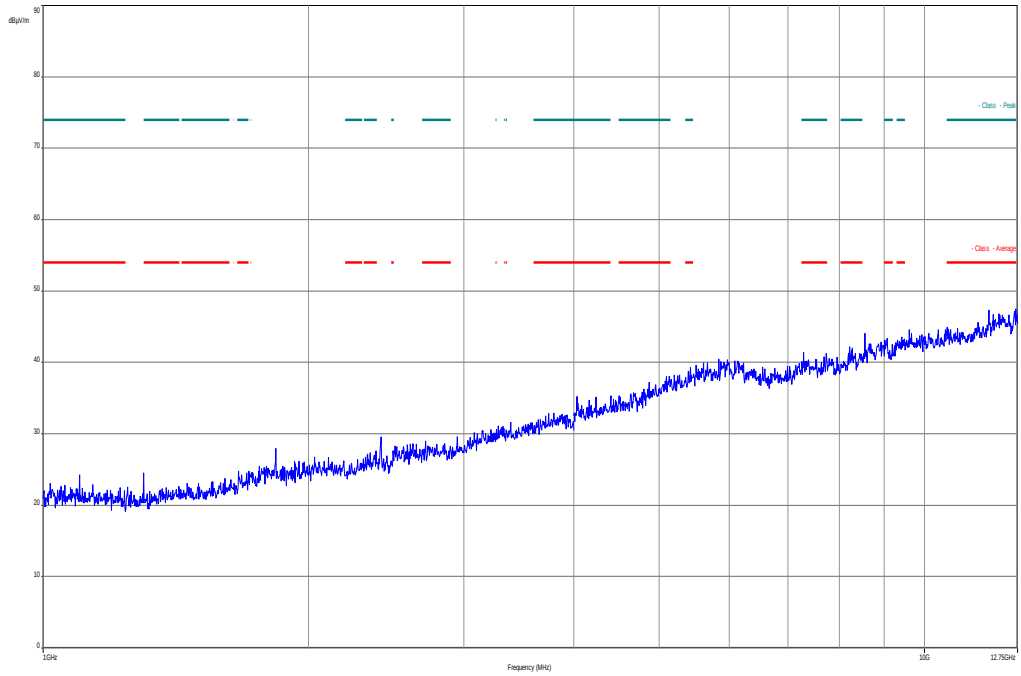
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

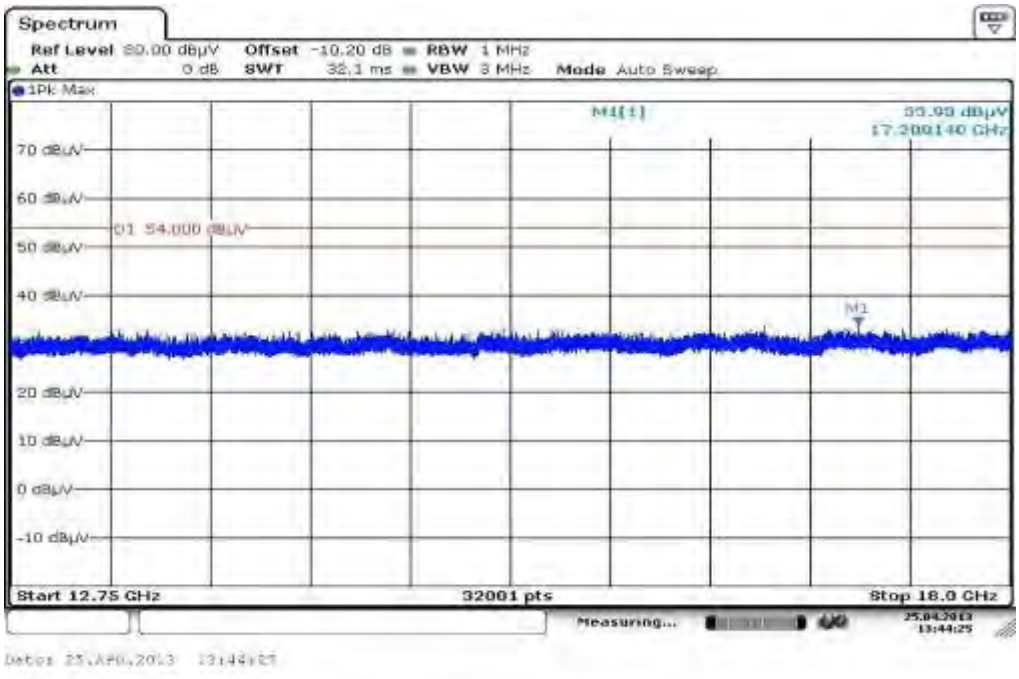
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.480000	17.0	1000.0	120.000	98.0	V	301.0	13.3	13.0	30.0	
107.520000	17.8	1000.0	120.000	210.0	V	172.0	11.2	15.7	33.5	
148.440000	19.2	1000.0	120.000	111.0	V	291.0	8.9	14.3	33.5	
187.800000	22.9	1000.0	120.000	98.0	V	0.0	10.9	10.6	33.5	
223.440000	29.5	1000.0	120.000	162.0	V	49.0	12.5	6.5	36.0	
300.000000	20.7	1000.0	120.000	270.0	H	172.0	14.5	15.3	36.0	

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

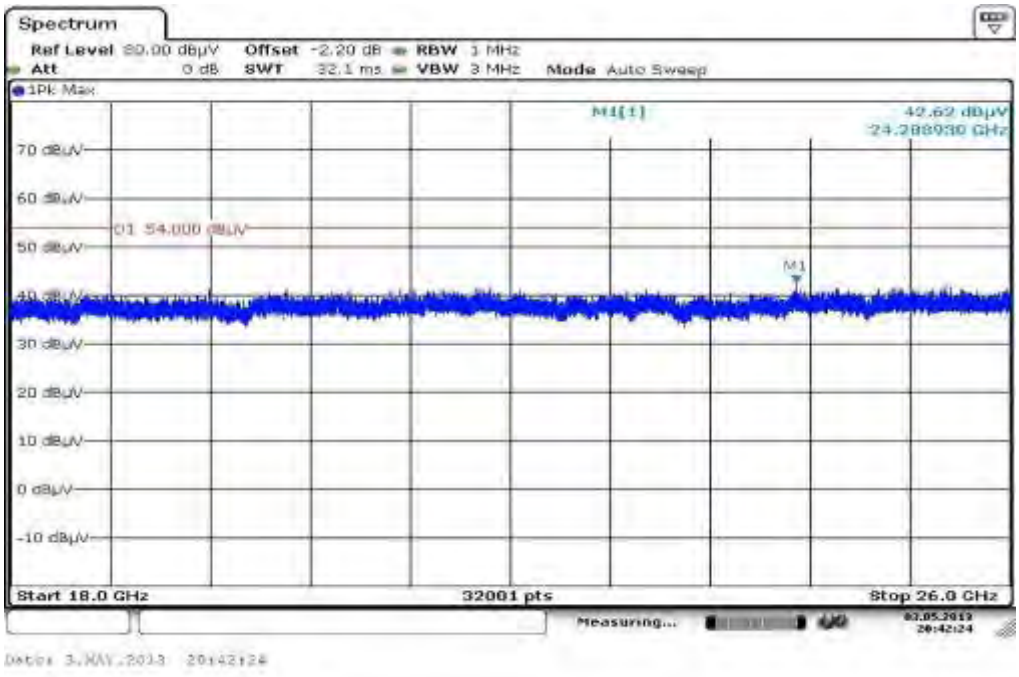


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

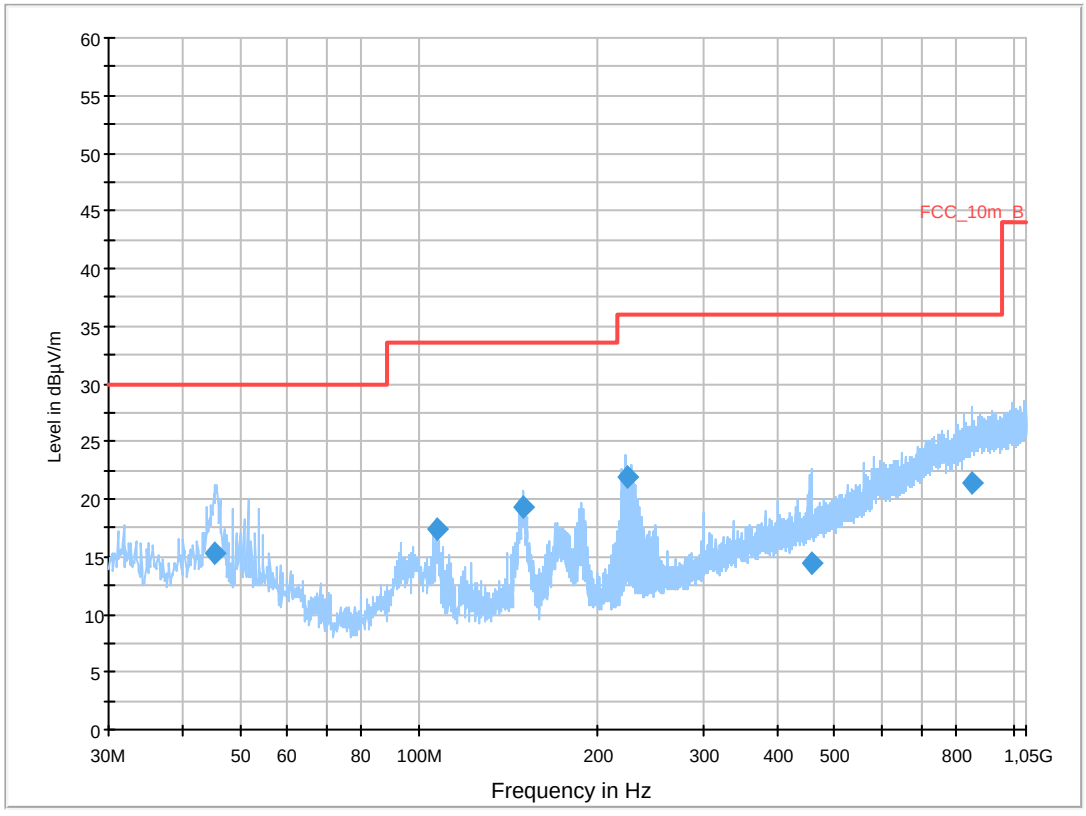
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan g-mode ch6
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

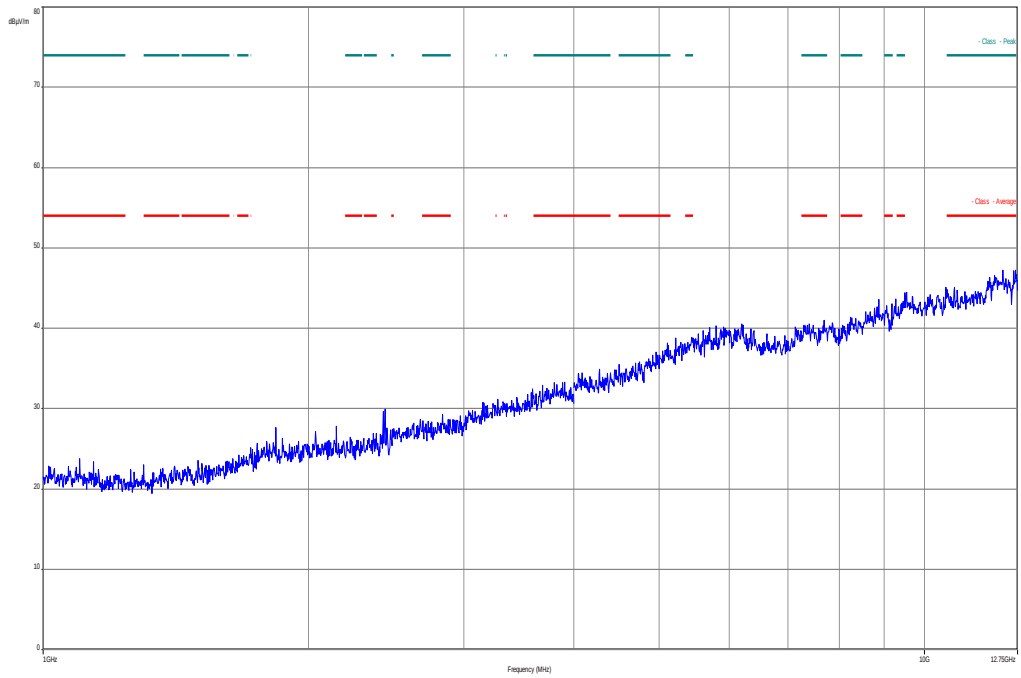
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

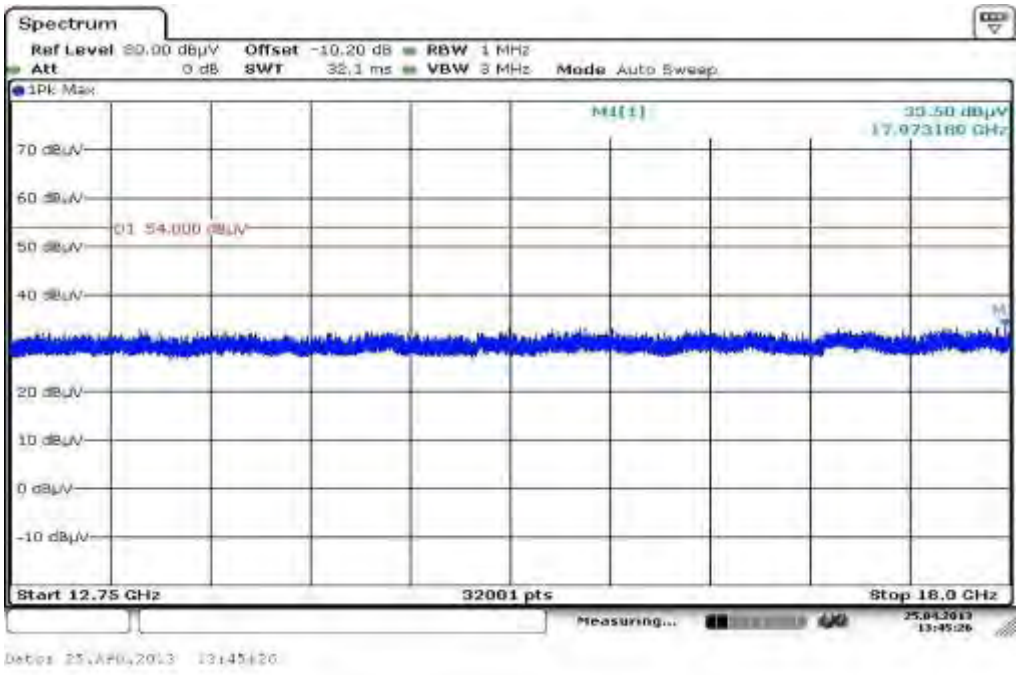
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.360000	15.3	1000.0	120.000	187.0	V	16.0	13.3	14.7	30.0	
107.520000	17.4	1000.0	120.000	199.0	V	173.0	11.2	16.1	33.5	
149.160000	19.4	1000.0	120.000	98.0	V	181.0	8.9	14.1	33.5	
224.880000	21.9	1000.0	120.000	98.0	V	16.0	12.5	14.1	36.0	
456.720000	14.4	1000.0	120.000	113.0	V	93.0	17.8	21.6	36.0	
852.720000	21.4	1000.0	120.000	98.0	V	38.0	24.6	14.6	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

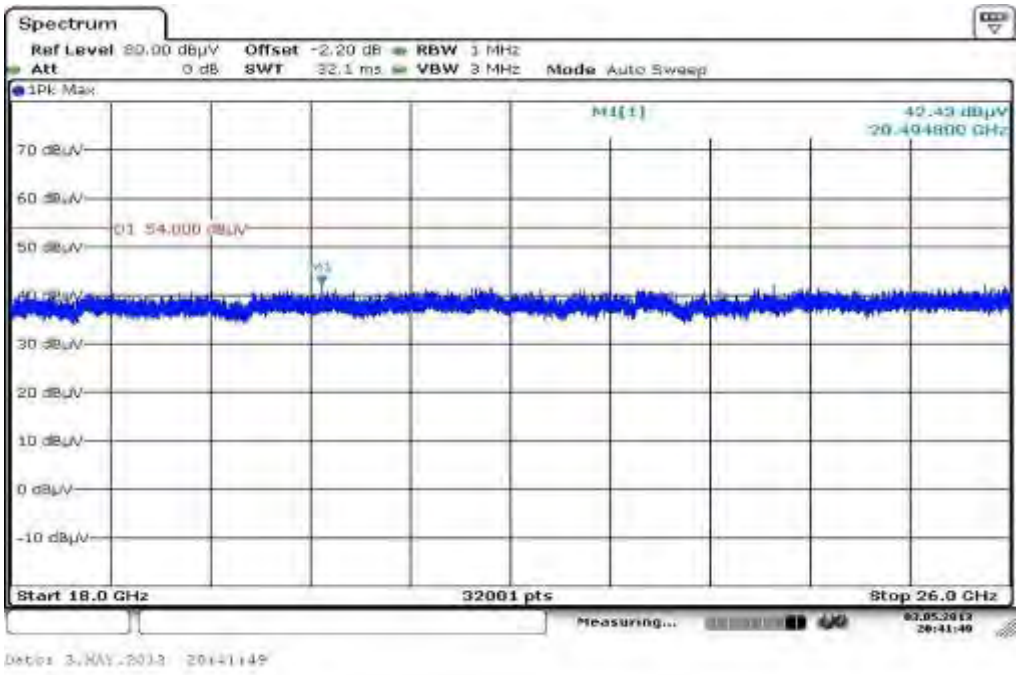


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

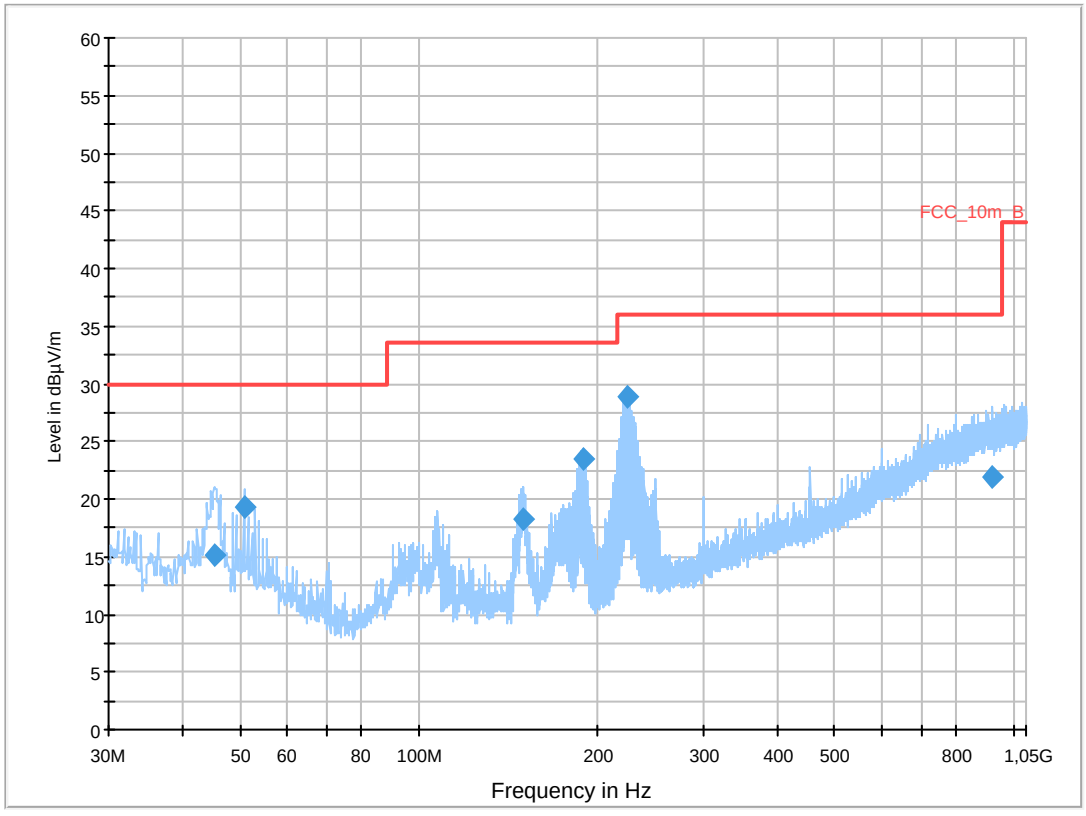
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan g-mode ch11
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

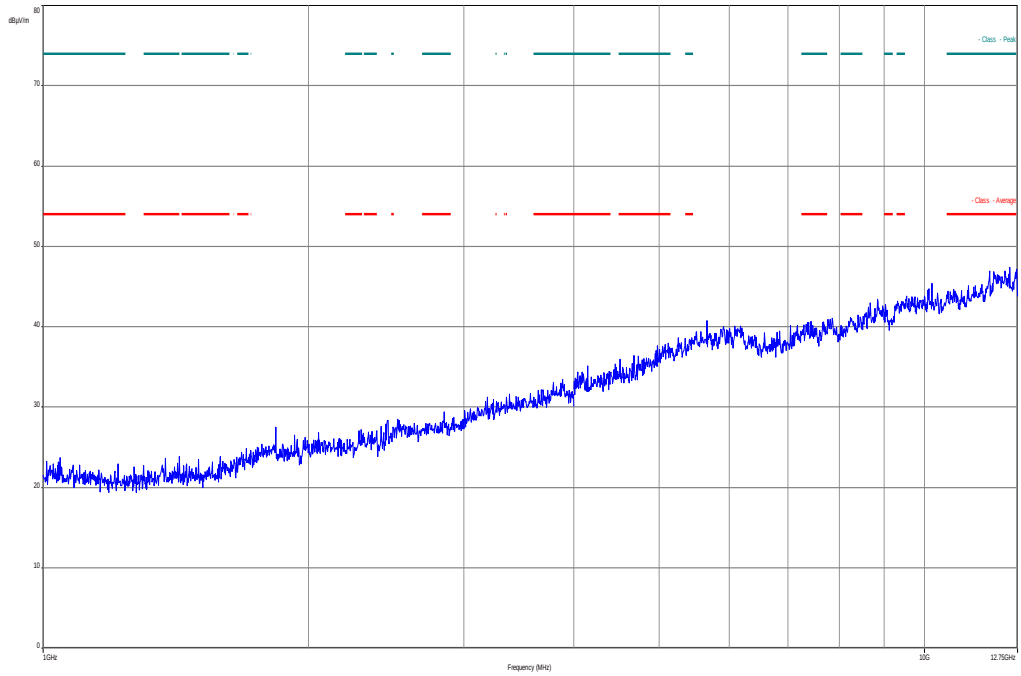
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

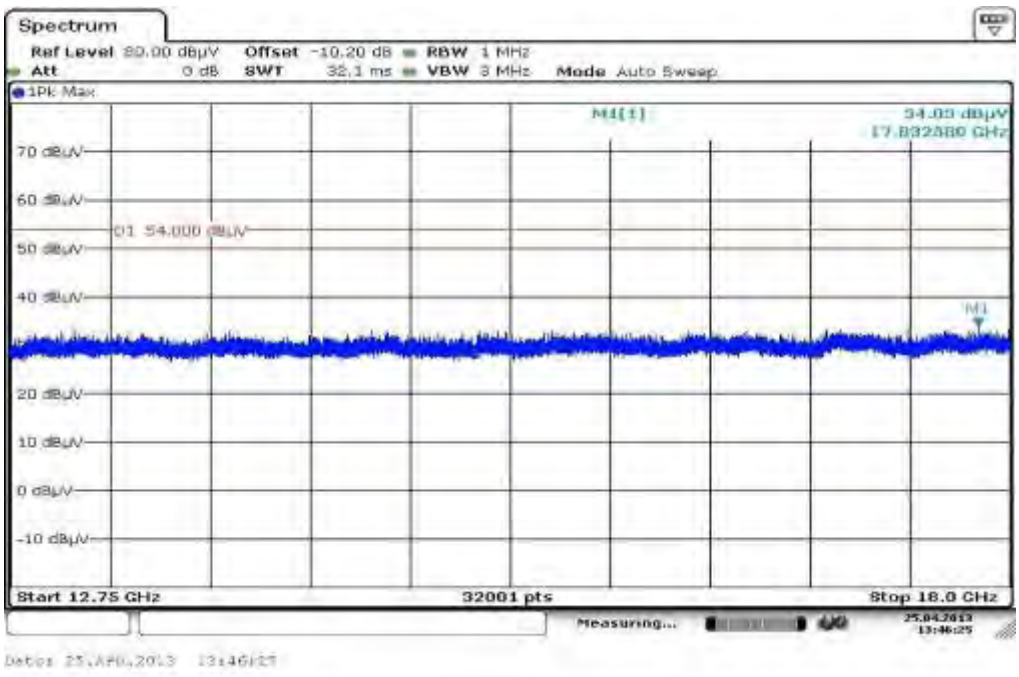
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.120000	15.1	1000.0	120.000	200.0	V	235.0	13.3	14.9	30.0	
50.760000	19.3	1000.0	120.000	105.0	V	181.0	13.3	10.7	30.0	
150.000000	18.3	1000.0	120.000	111.0	V	0.0	8.9	15.2	33.5	
189.360000	23.5	1000.0	120.000	98.0	V	74.0	11.0	10.0	33.5	
223.440000	28.8	1000.0	120.000	120.0	V	9.0	12.5	7.2	36.0	
919.440000	21.9	1000.0	120.000	270.0	V	74.0	25.3	14.1	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

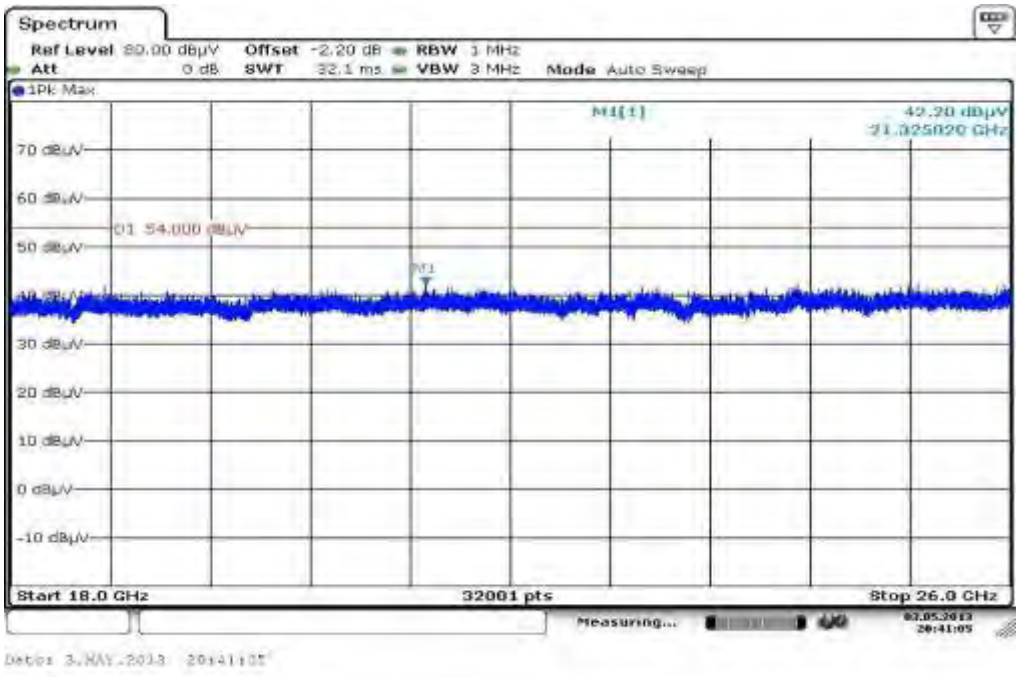


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / n – mode HT20 (ANT 453564154611)

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

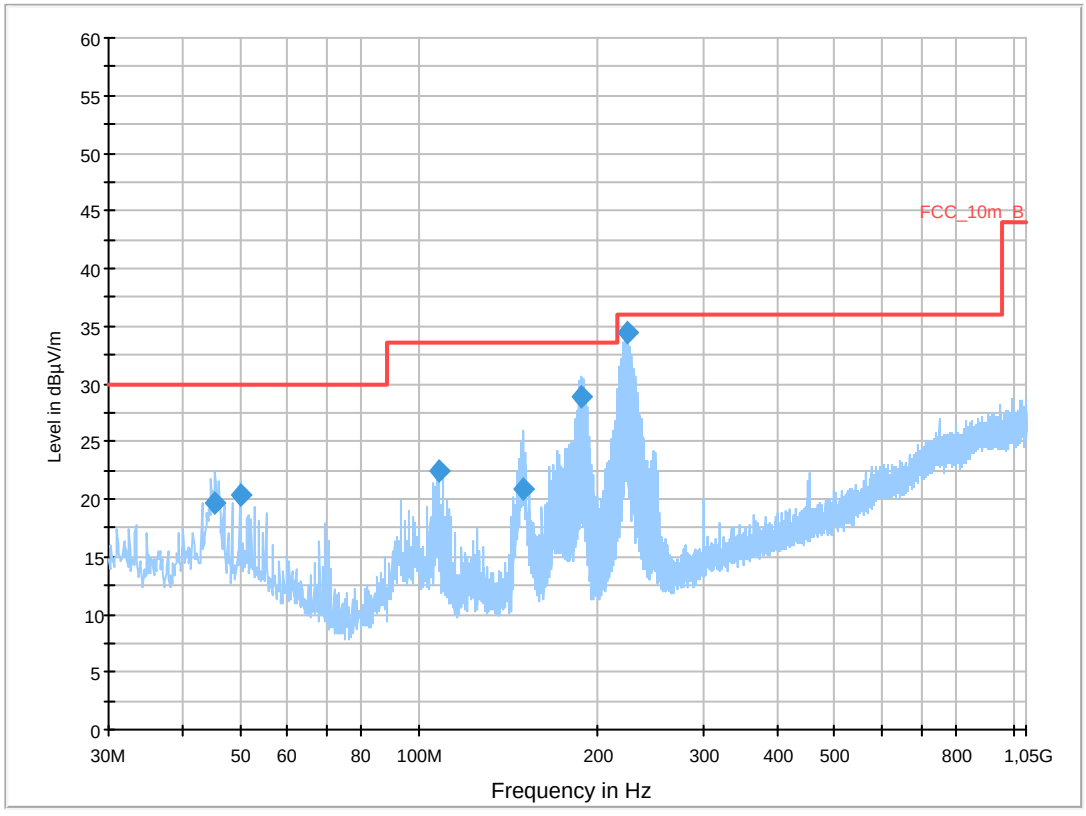
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT20 ch1
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

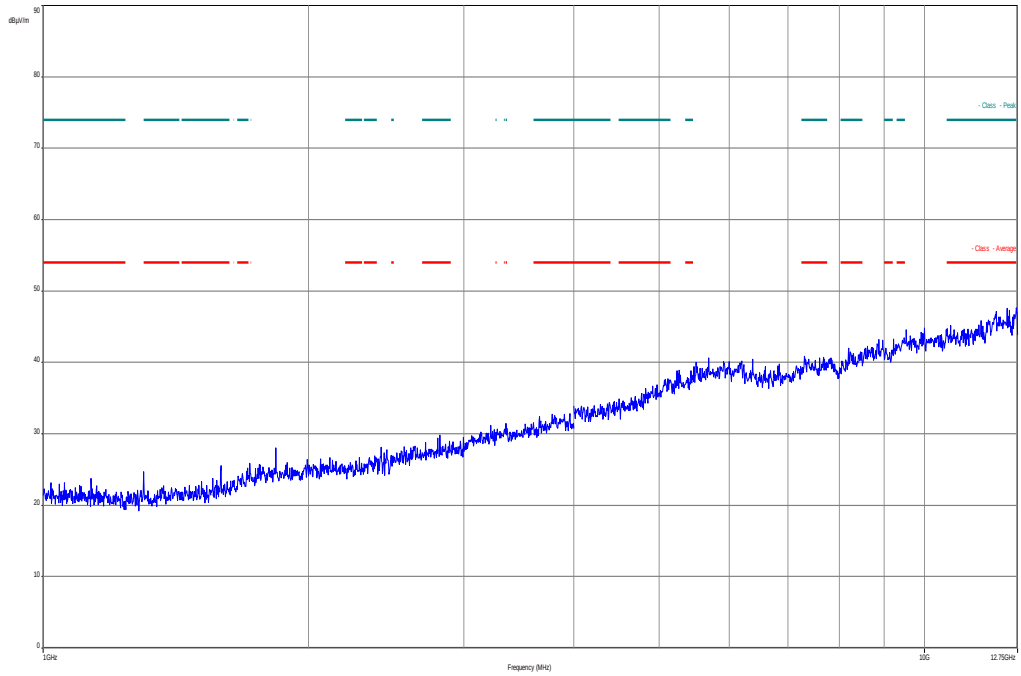
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

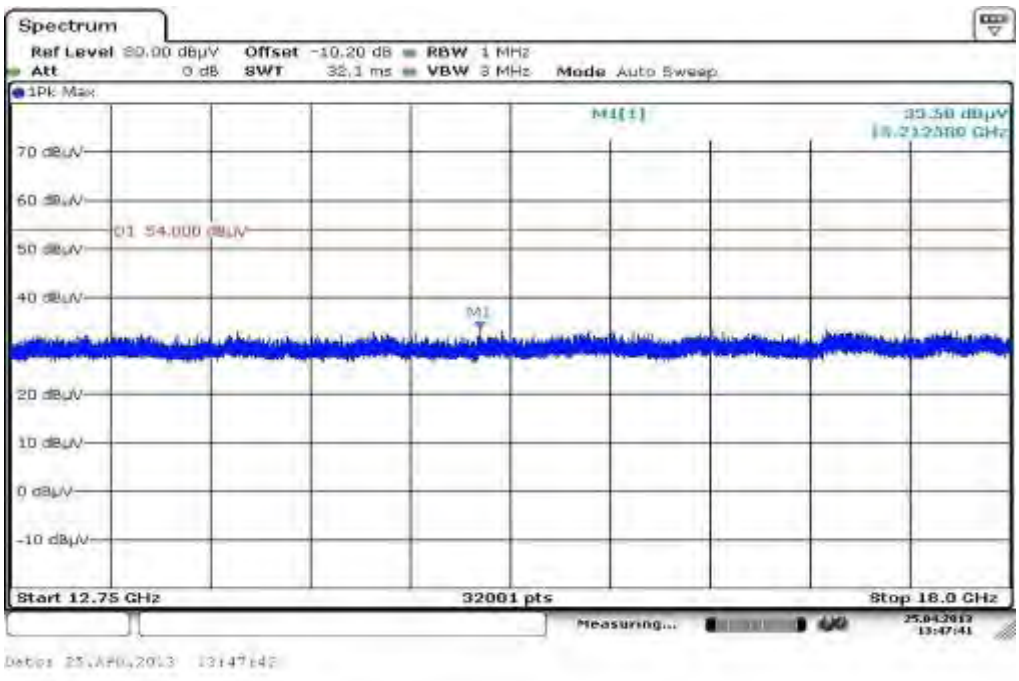
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.360000	19.6	1000.0	120.000	98.0	V	89.0	13.3	10.4	30.0	
49.920000	20.4	1000.0	120.000	104.0	V	192.0	13.4	9.6	30.0	
108.120000	22.4	1000.0	120.000	199.0	V	166.0	11.2	11.1	33.5	
149.760000	20.9	1000.0	120.000	98.0	V	337.0	8.9	12.6	33.5	
187.560000	28.8	1000.0	120.000	104.0	V	89.0	10.9	4.7	33.5	
223.800000	34.4	1000.0	120.000	185.0	V	28.0	12.5	1.6	36.0	

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

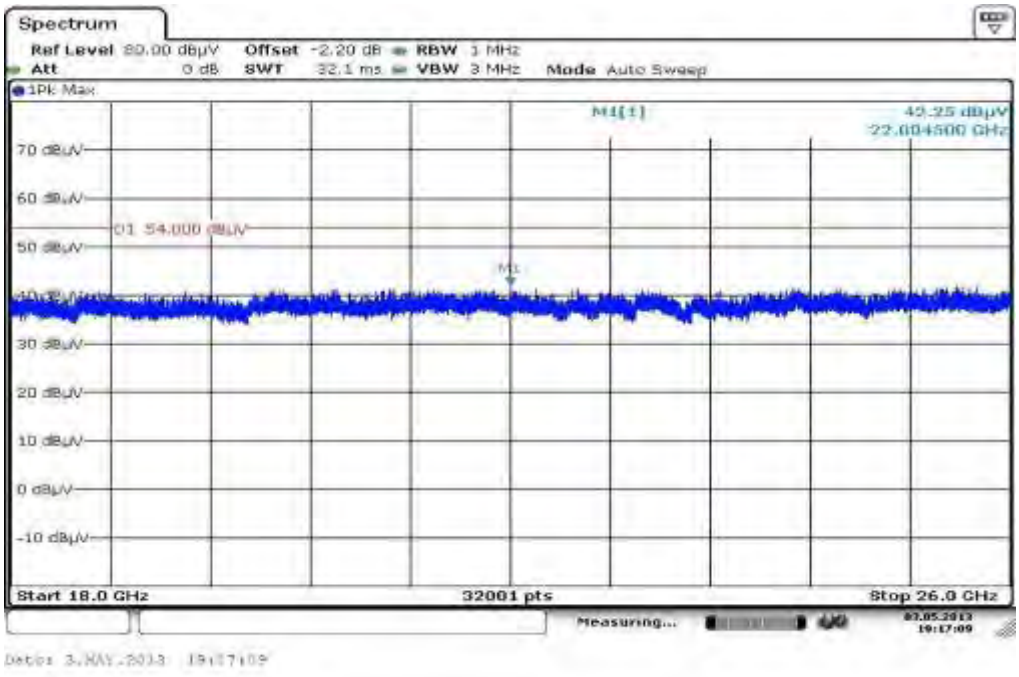


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

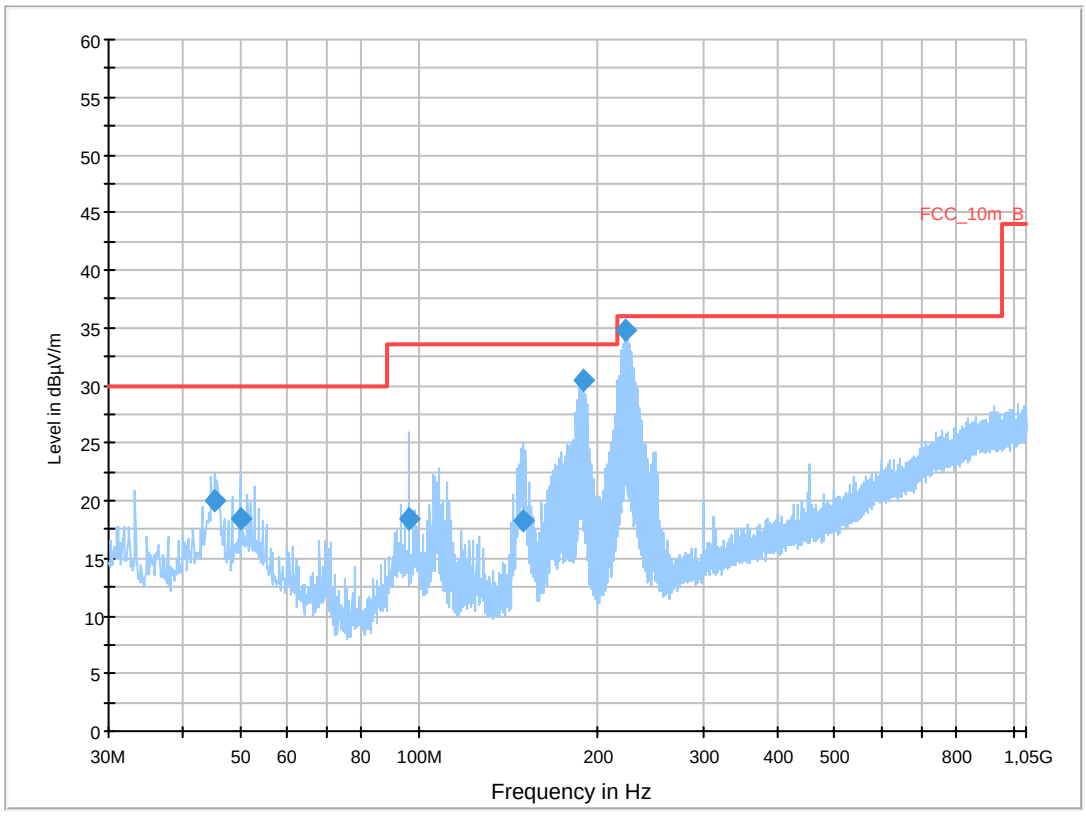
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT20 ch6
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

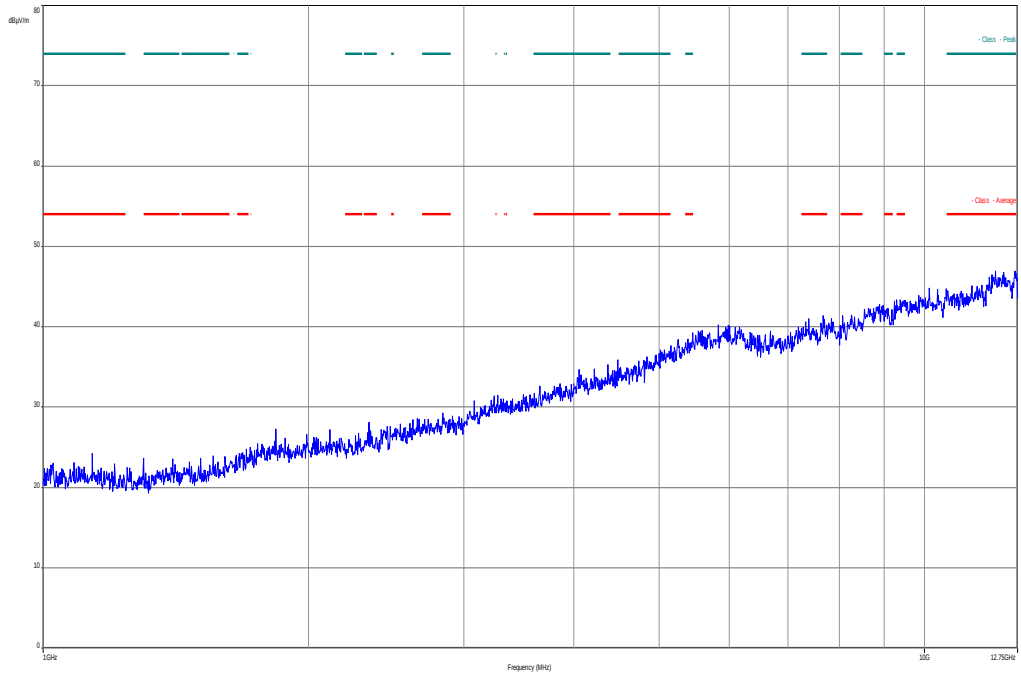
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

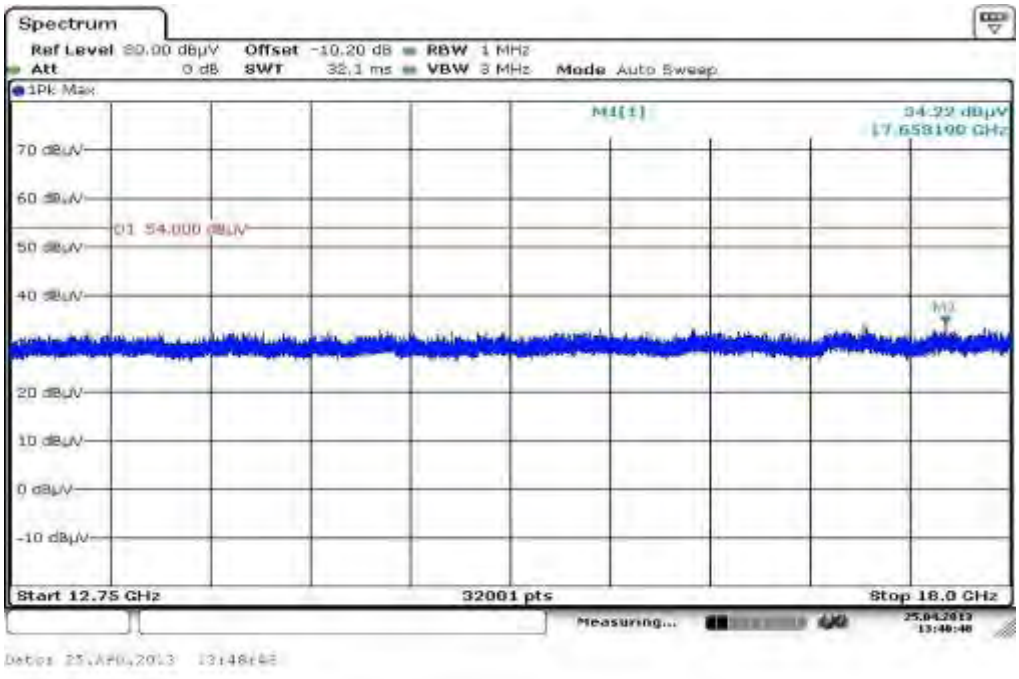
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.360000	19.9	1000.0	120.000	98.0	V	89.0	13.3	10.1	30.0	
49.920000	18.5	1000.0	120.000	197.0	V	298.0	13.4	11.5	30.0	
96.000000	18.4	1000.0	120.000	120.0	V	309.0	11.4	15.1	33.5	
149.760000	18.2	1000.0	120.000	144.0	V	0.0	8.9	15.3	33.5	
189.000000	30.4	1000.0	120.000	98.0	V	89.0	11.0	3.1	33.5	
222.960000	34.8	1000.0	120.000	172.0	V	41.0	12.5	1.2	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

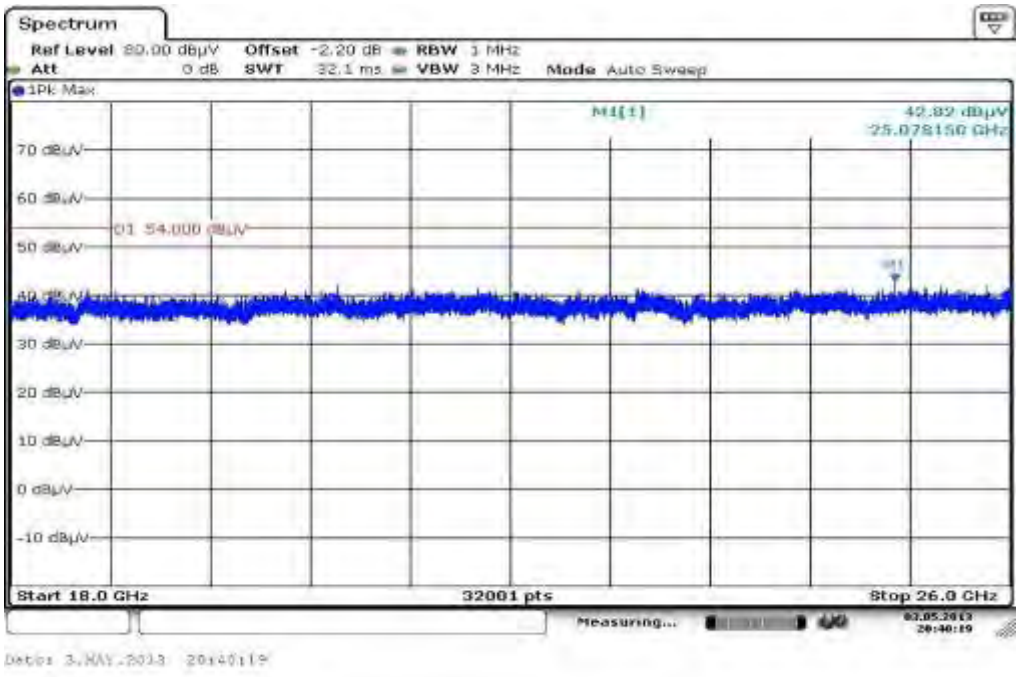


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

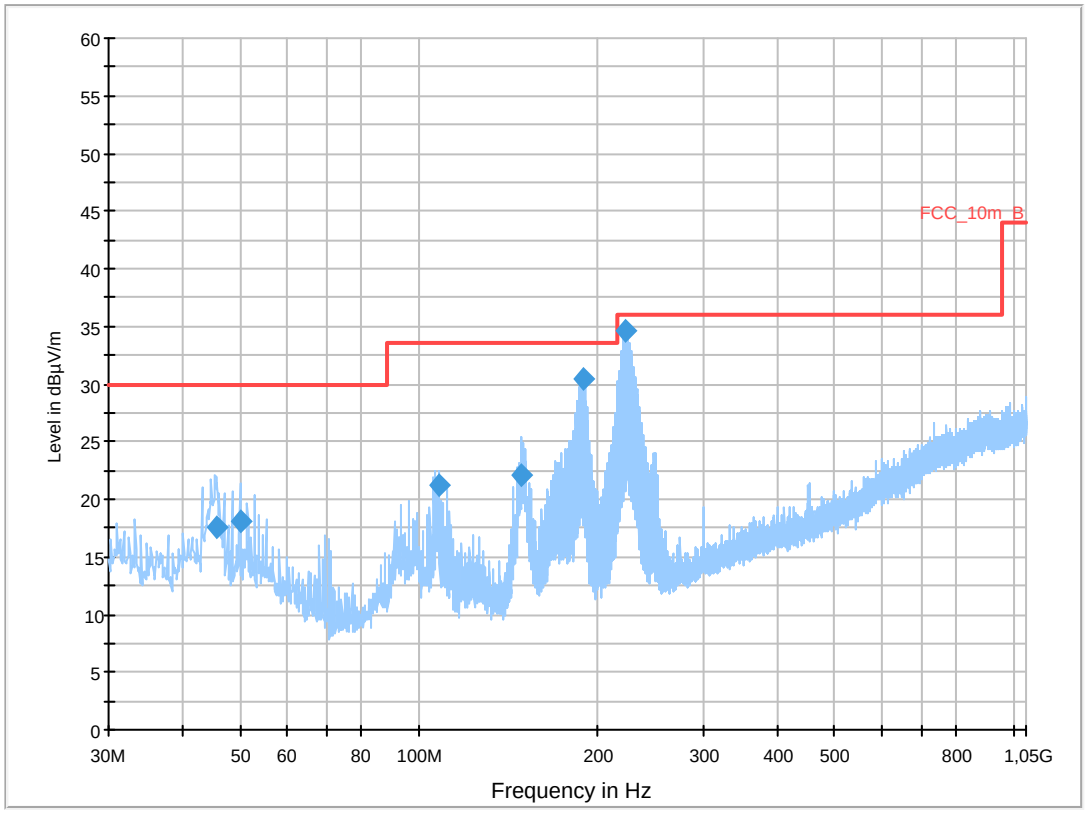
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT20 ch11
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup:	Electric Field (NOS)
Level Unit:	dBµV/m

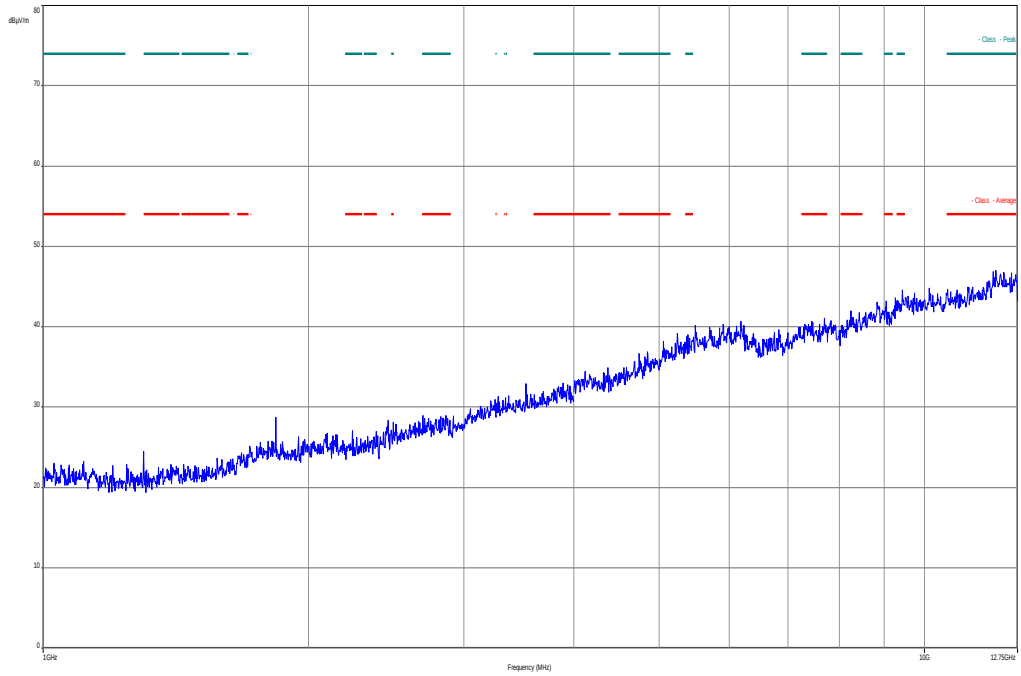
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

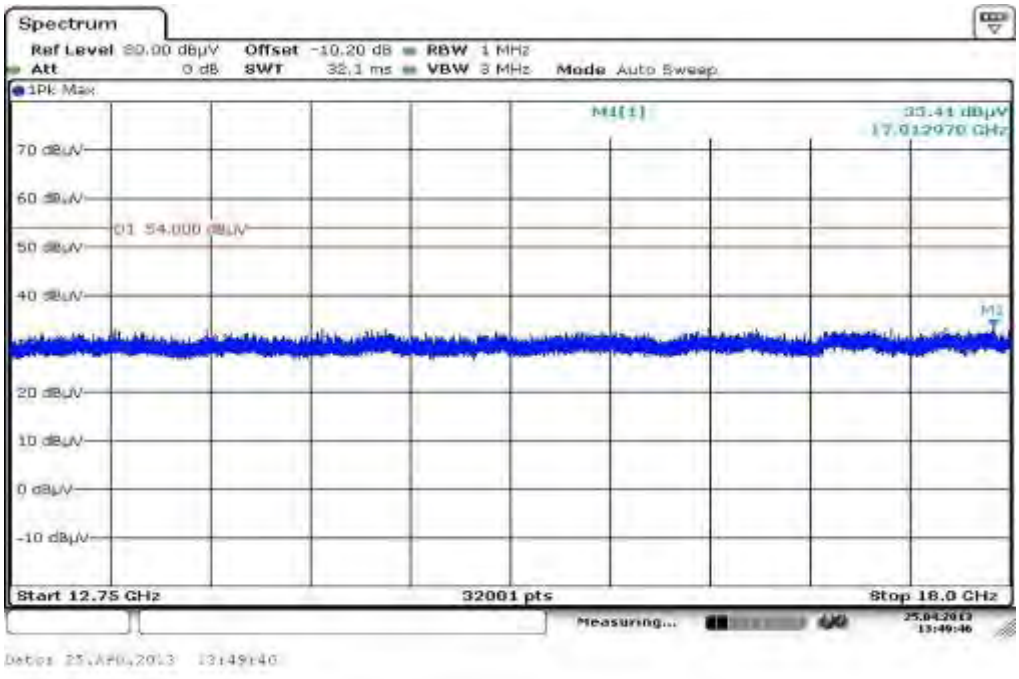
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.480000	17.5	1000.0	120.000	98.0	V	0.0	13.3	12.5	30.0	
49.920000	18.1	1000.0	120.000	209.0	V	111.0	13.4	11.9	30.0	
108.120000	21.2	1000.0	120.000	185.0	V	130.0	11.2	12.3	33.5	
148.200000	22.1	1000.0	120.000	104.0	V	173.0	8.9	11.4	33.5	
189.000000	30.4	1000.0	120.000	98.0	V	68.0	11.0	3.1	33.5	
222.240000	34.6	1000.0	120.000	172.0	V	27.0	12.5	1.4	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

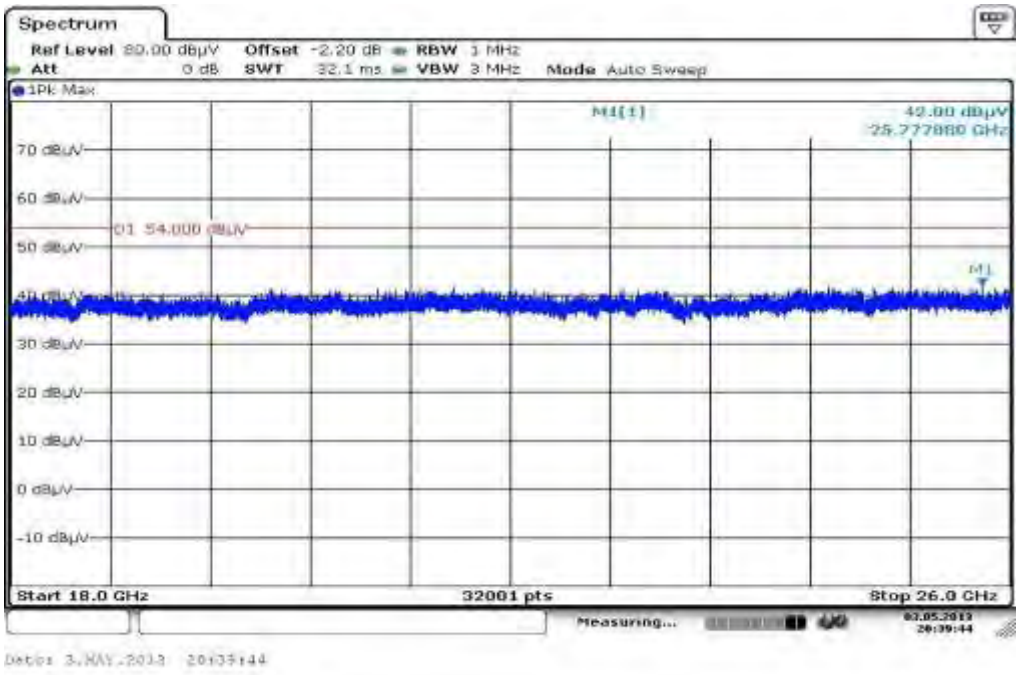


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / n – mode HT40 (ANT 453564154611)

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

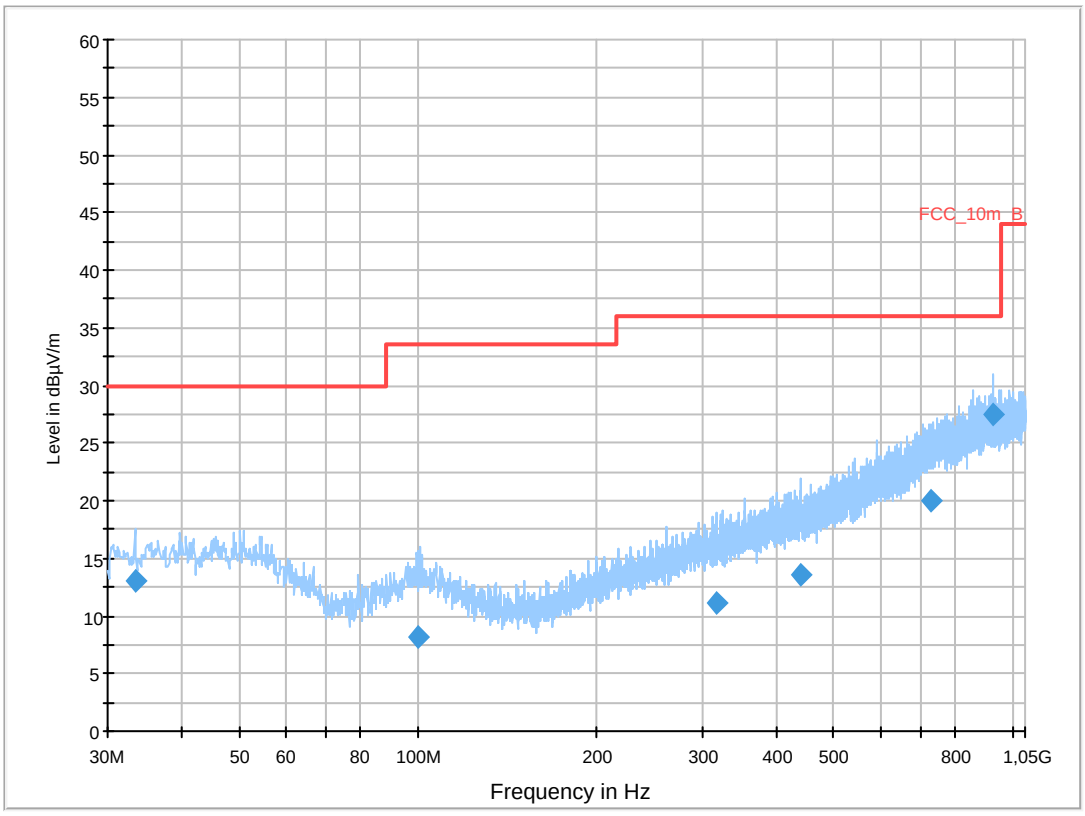
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT 40 tx @2427 MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

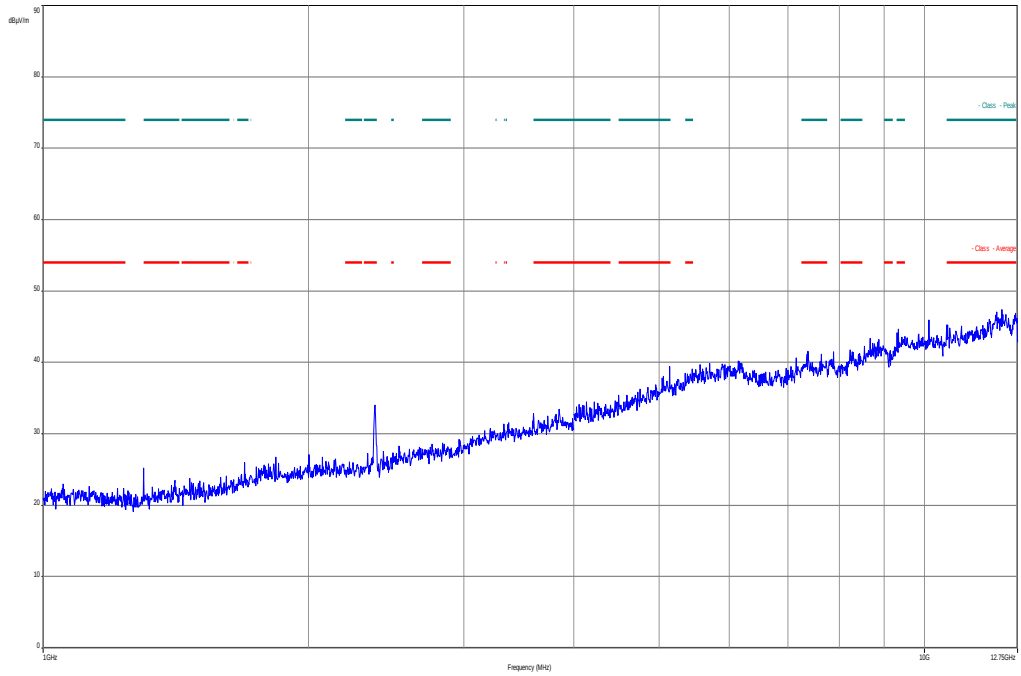
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

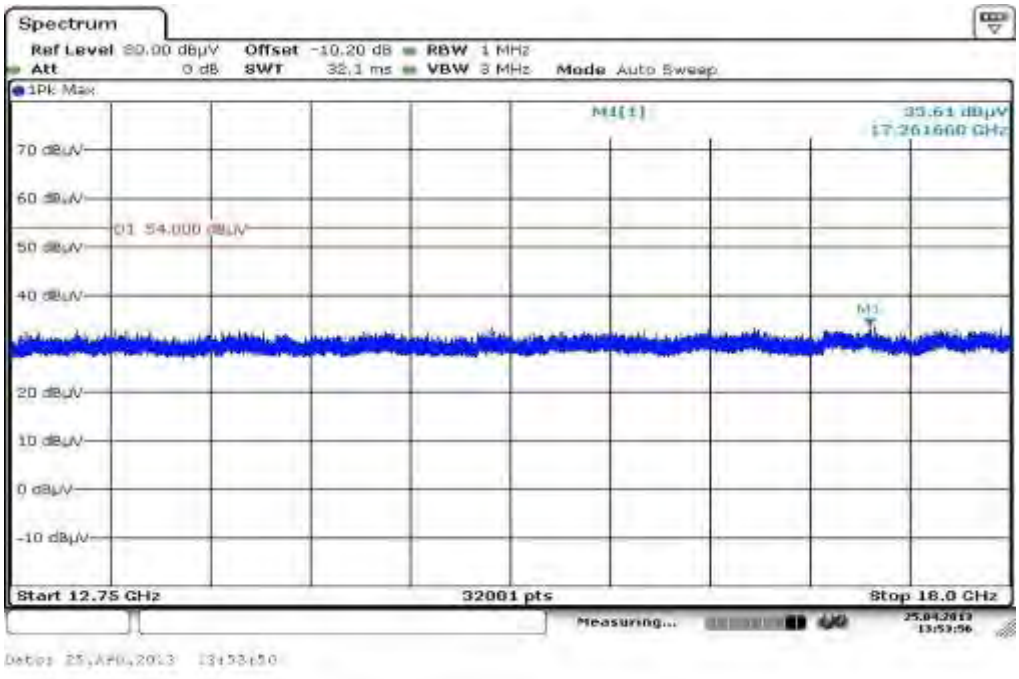
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
33.386550	13.1	1000.0	120.000	98.0	V	190.0	12.9	16.9	30.0	
100.021350	8.1	1000.0	120.000	161.0	V	268.0	11.9	25.4	33.5	
317.308350	11.2	1000.0	120.000	170.0	H	280.0	15.1	24.8	36.0	
441.773250	13.5	1000.0	120.000	98.0	V	80.0	17.5	22.5	36.0	
731.649300	20.0	1000.0	120.000	170.0	V	10.0	23.2	16.0	36.0	
927.381900	27.5	1000.0	120.000	170.0	V	-3.0	25.3	8.5	36.0	

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

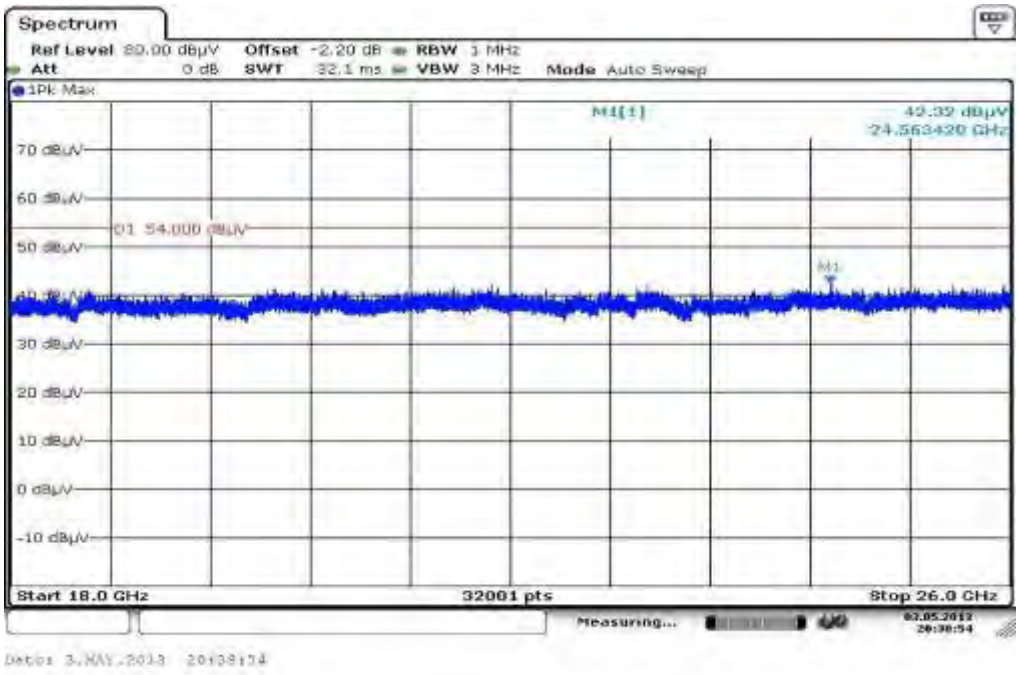


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

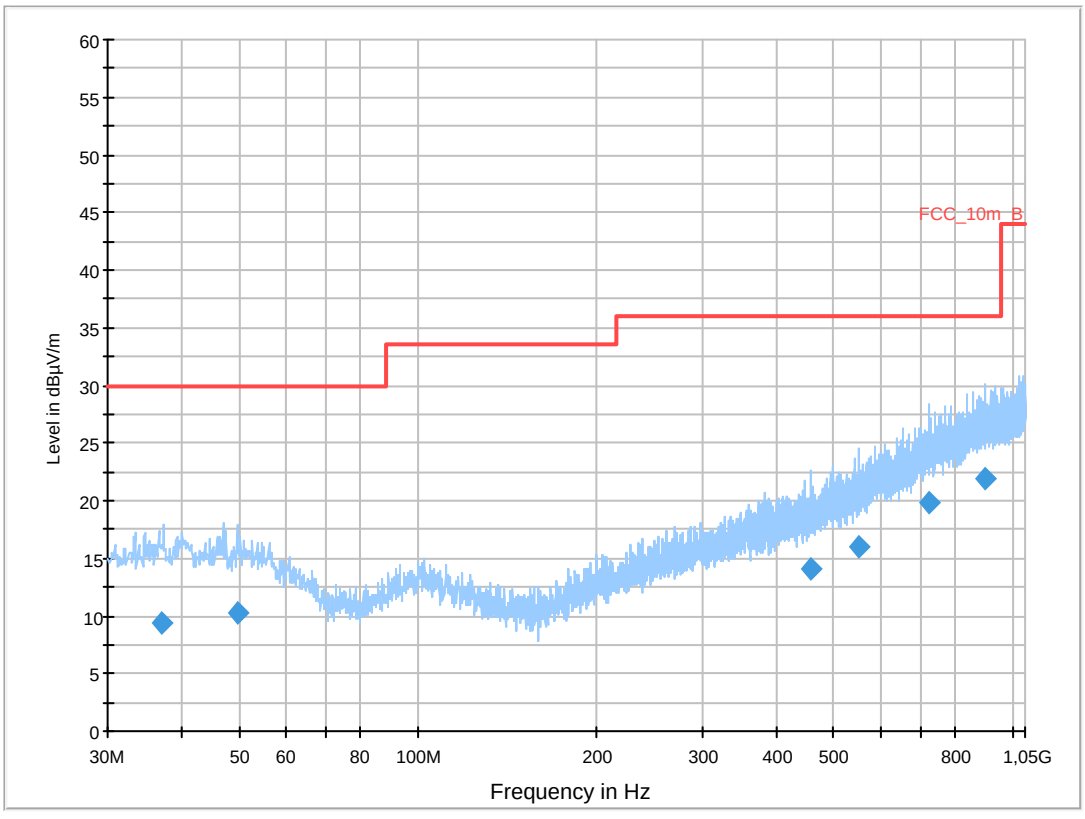
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT 40 tx @2437 MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

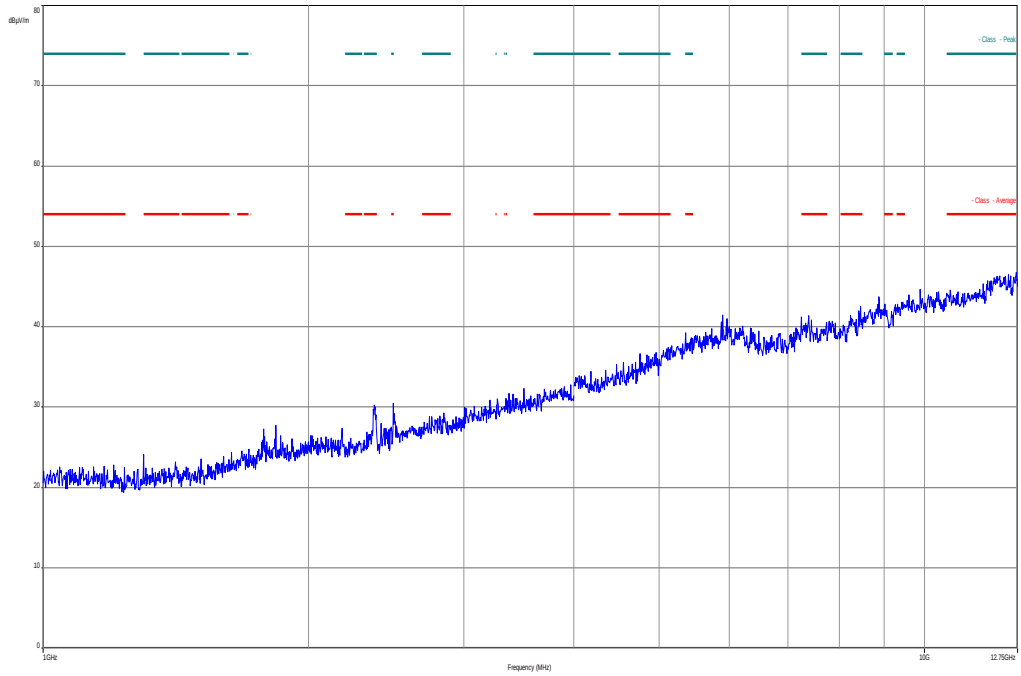
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

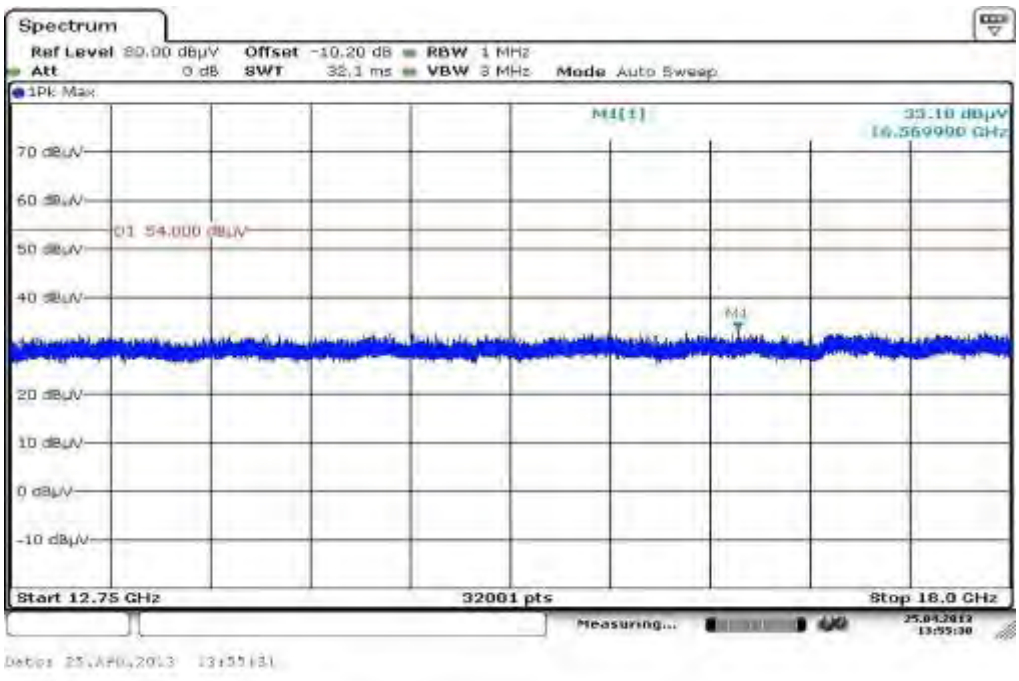
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
37.009800	9.3	1000.0	120.000	147.0	H	270.0	13.2	20.7	30.0	
49.763700	10.2	1000.0	120.000	98.0	V	190.0	13.4	19.8	30.0	
457.873800	14.1	1000.0	120.000	122.0	H	280.0	17.8	21.9	36.0	
552.931350	16.1	1000.0	120.000	120.0	H	178.0	19.4	19.9	36.0	
720.627150	19.8	1000.0	120.000	159.0	H	90.0	23.0	16.2	36.0	
896.063400	21.9	1000.0	120.000	170.0	H	190.0	25.2	14.1	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

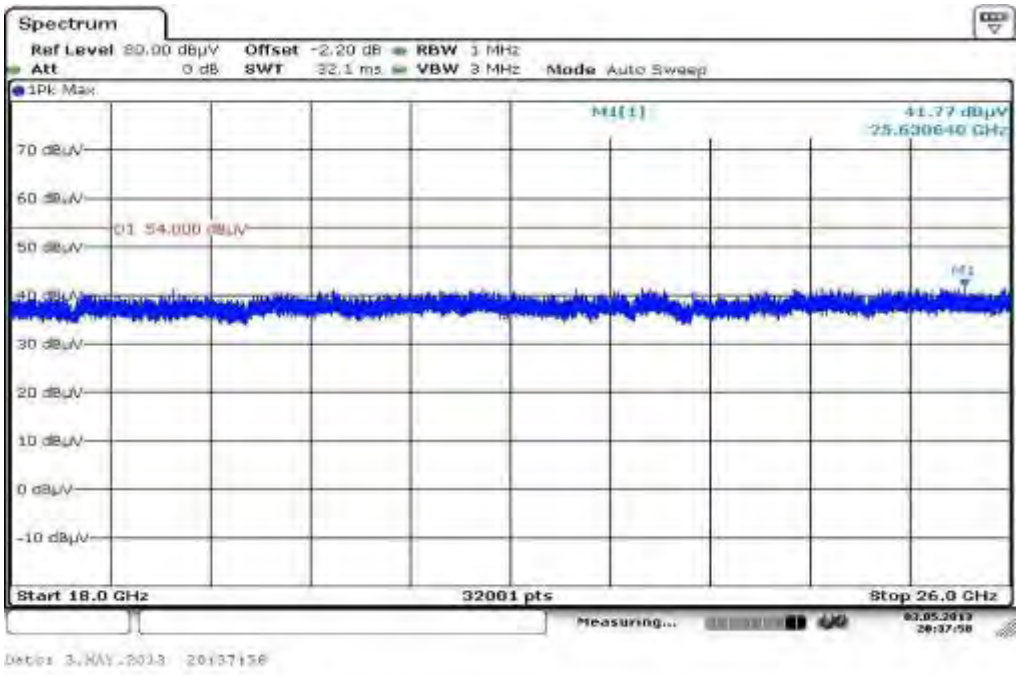


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

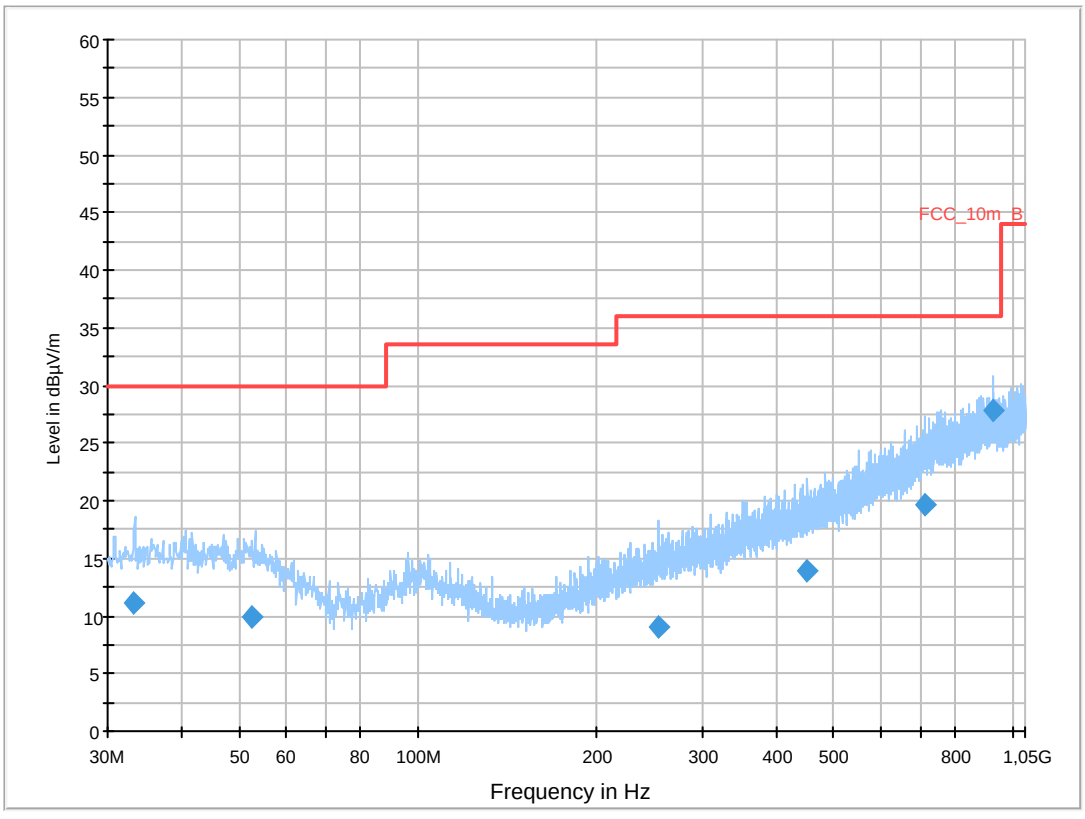
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT 40 tx @2452 MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

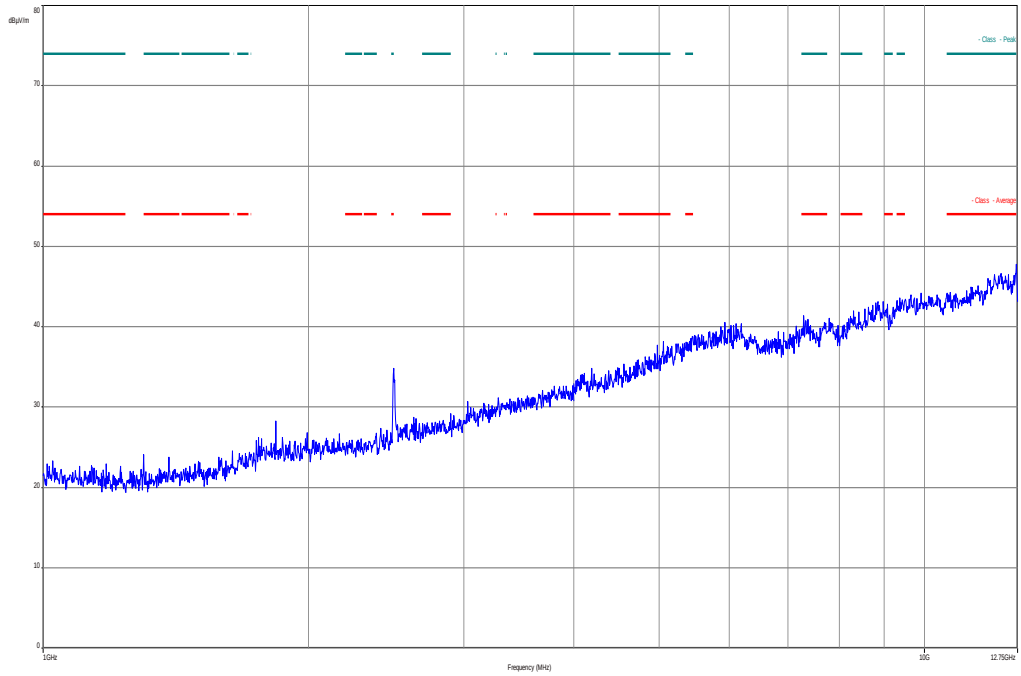
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

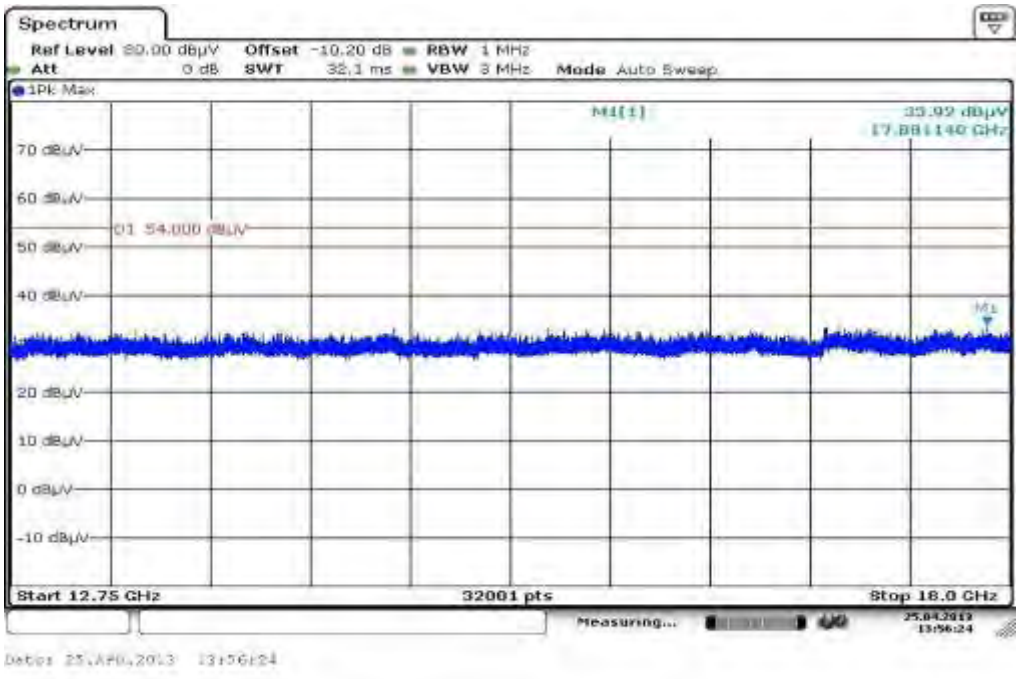
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
33.259050	11.1	1000.0	120.000	170.0	V	100.0	12.8	18.9	30.0	
52.626450	9.9	1000.0	120.000	104.0	V	182.0	13.1	20.1	30.0	
254.155950	9.1	1000.0	120.000	170.0	V	-10.0	13.4	26.9	36.0	
452.218950	13.8	1000.0	120.000	170.0	V	265.0	17.7	22.2	36.0	
710.362350	19.7	1000.0	120.000	170.0	H	170.0	22.7	16.3	36.0	
927.384000	27.9	1000.0	120.000	170.0	V	171.0	25.3	8.1	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

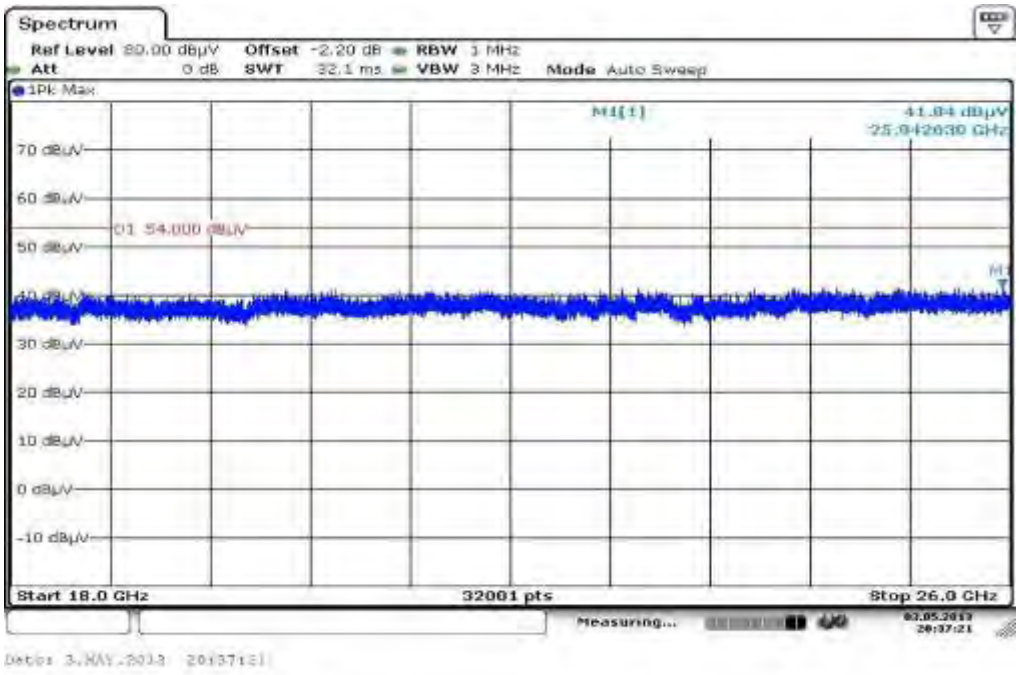


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: DSSS / b – mode (ANT 453564175981)

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

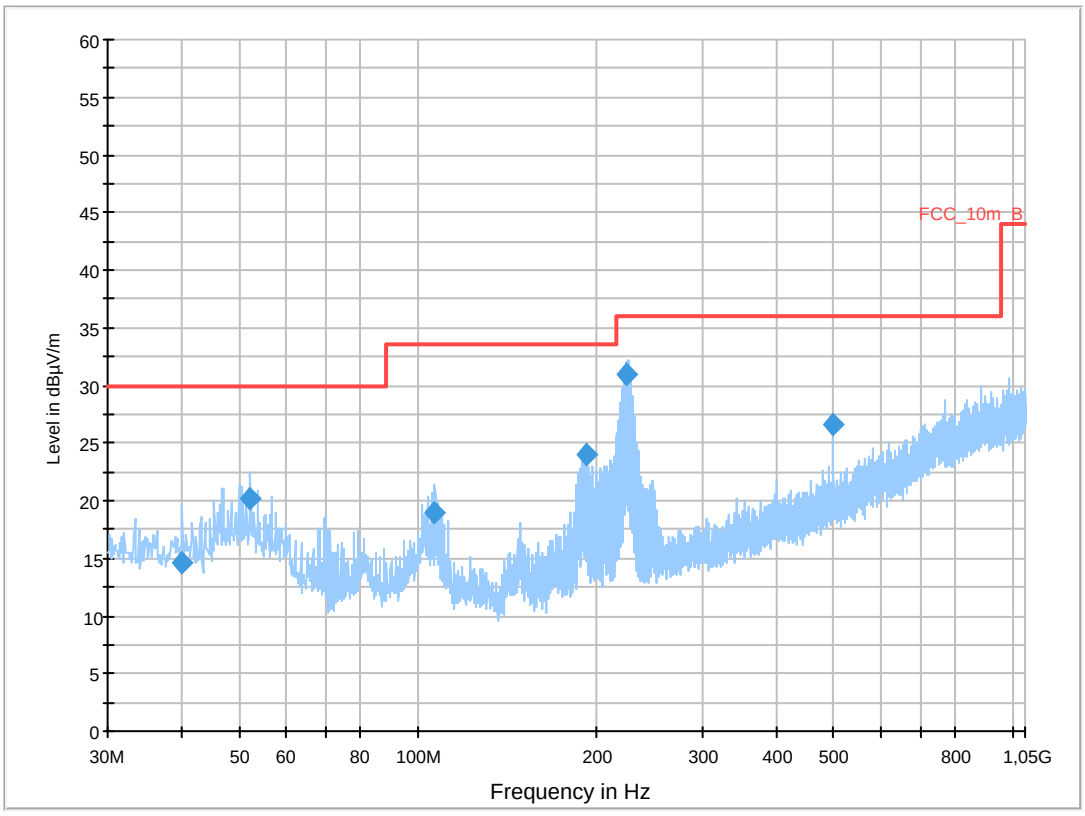
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan b-mode ch1
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

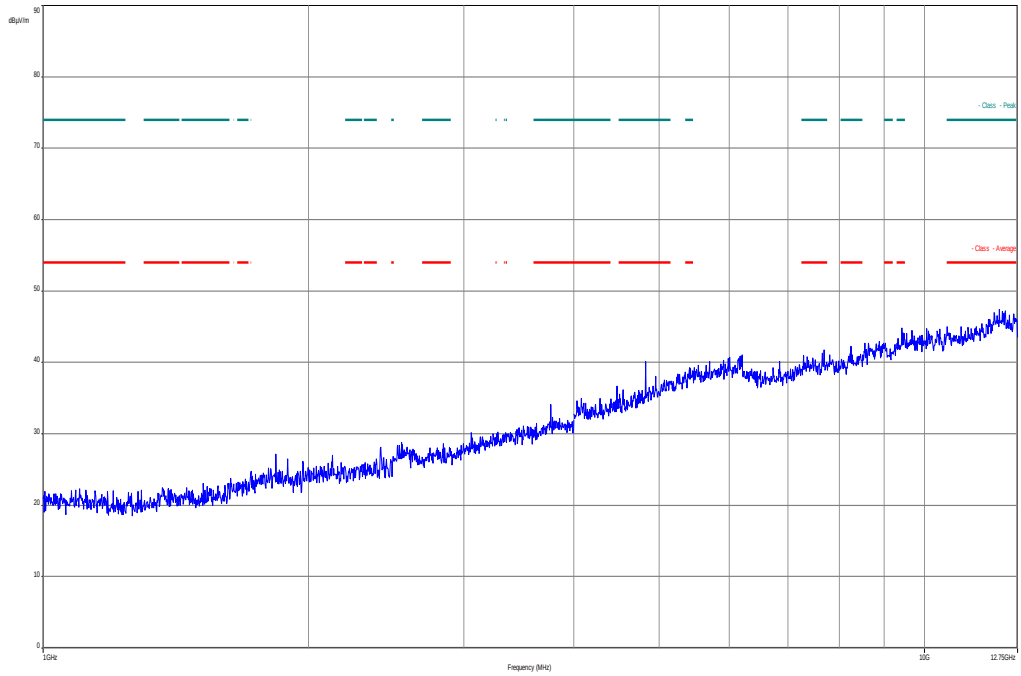
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

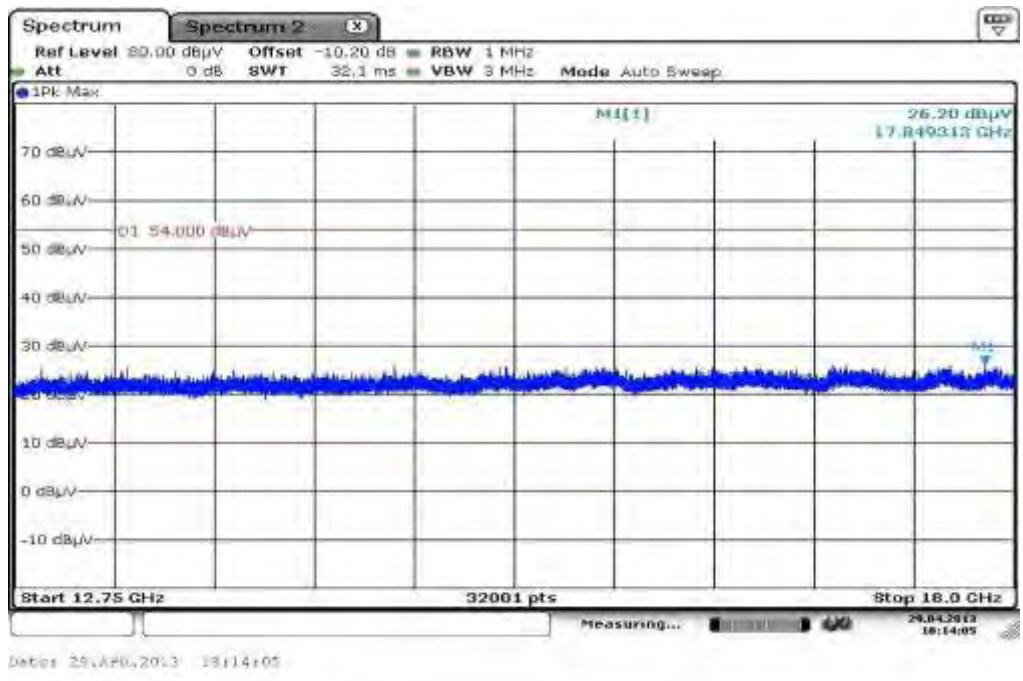
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
40.104300	14.7	1000.0	120.000	120.0	V	-2.0	13.4	15.3	30.0	
52.161750	20.2	1000.0	120.000	98.0	V	272.0	13.2	9.8	30.0	
106.624050	19.0	1000.0	120.000	120.0	V	261.0	11.3	14.5	33.5	
191.307150	24.0	1000.0	120.000	170.0	V	270.0	11.2	9.5	33.5	
224.605800	31.0	1000.0	120.000	98.0	V	190.0	12.5	5.0	36.0	
500.007000	26.6	1000.0	120.000	170.0	H	-2.0	18.7	9.4	36.0	

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

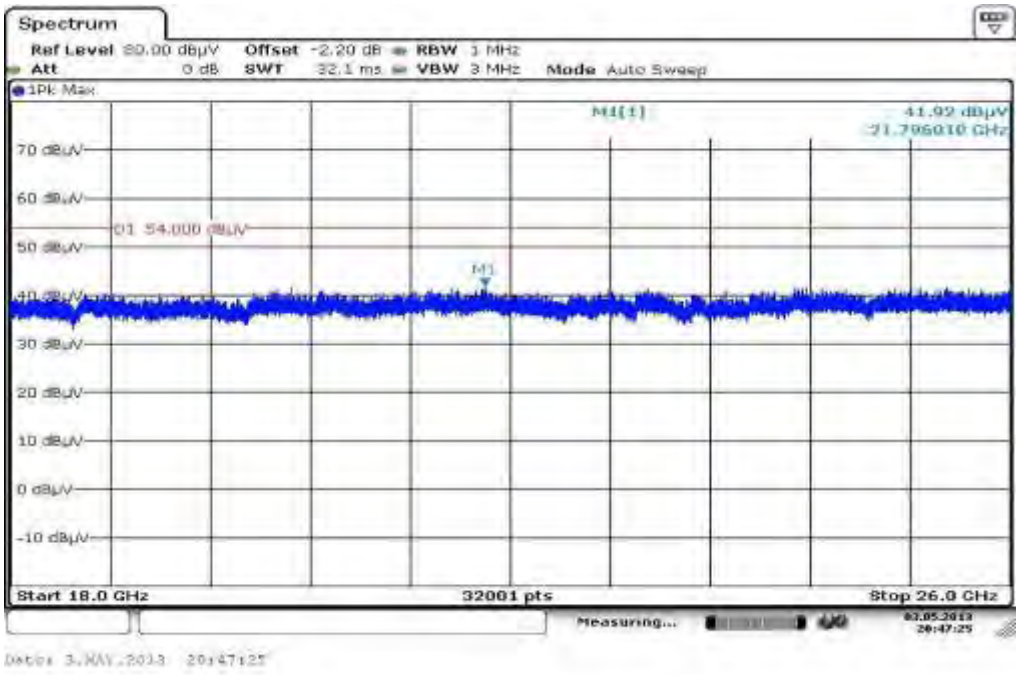


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

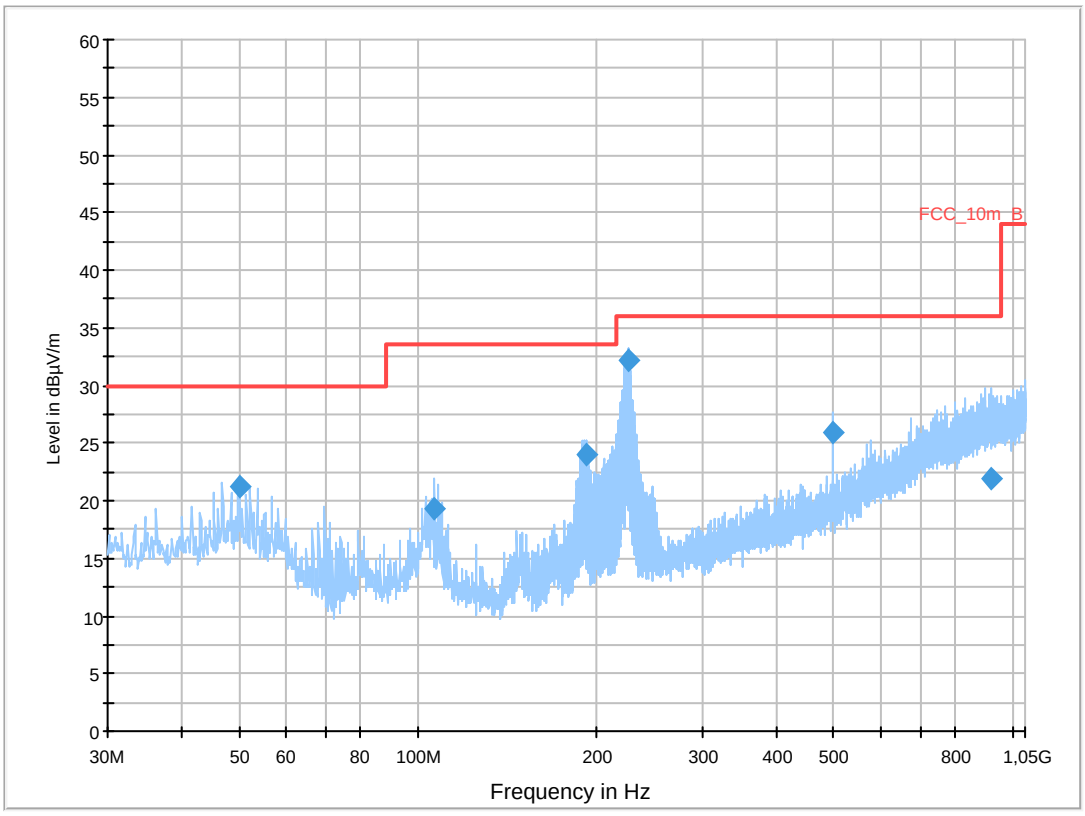
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan b-mode ch6
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

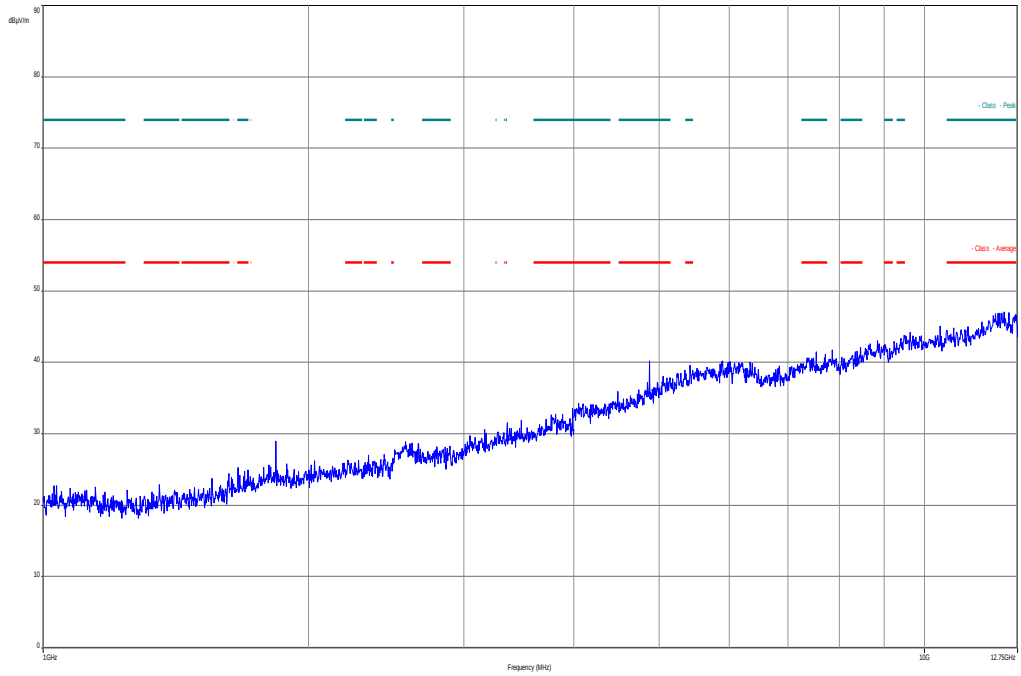
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

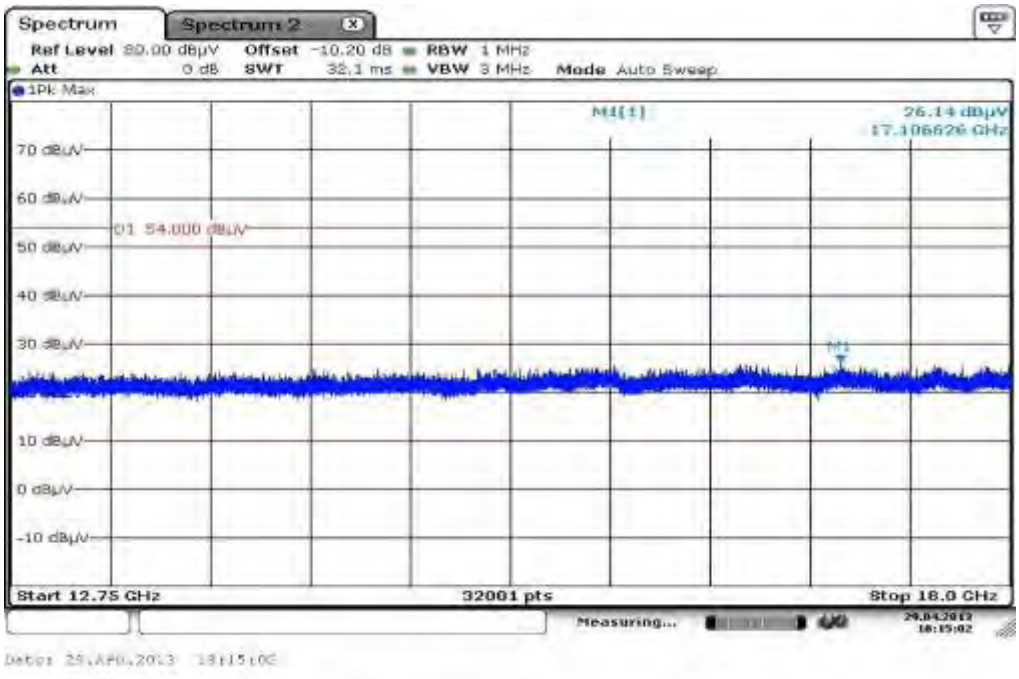
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
49.884450	21.2	1000.0	120.000	98.0	V	-10.0	13.4	8.8	30.0	
106.593900	19.3	1000.0	120.000	170.0	V	280.0	11.3	14.2	33.5	
191.237850	23.9	1000.0	120.000	105.0	V	100.0	11.2	9.6	33.5	
225.306300	32.2	1000.0	120.000	98.0	V	265.0	12.6	3.8	36.0	
500.026200	25.9	1000.0	120.000	170.0	H	-2.0	18.7	10.1	36.0	
919.479900	22.0	1000.0	120.000	120.0	H	280.0	25.3	14.0	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

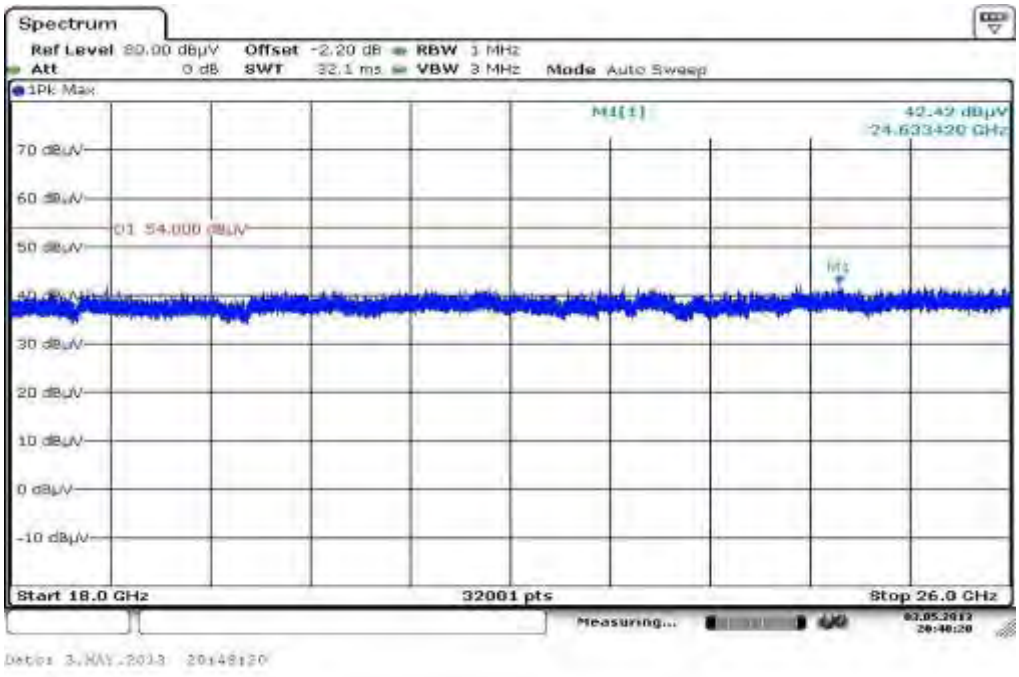


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

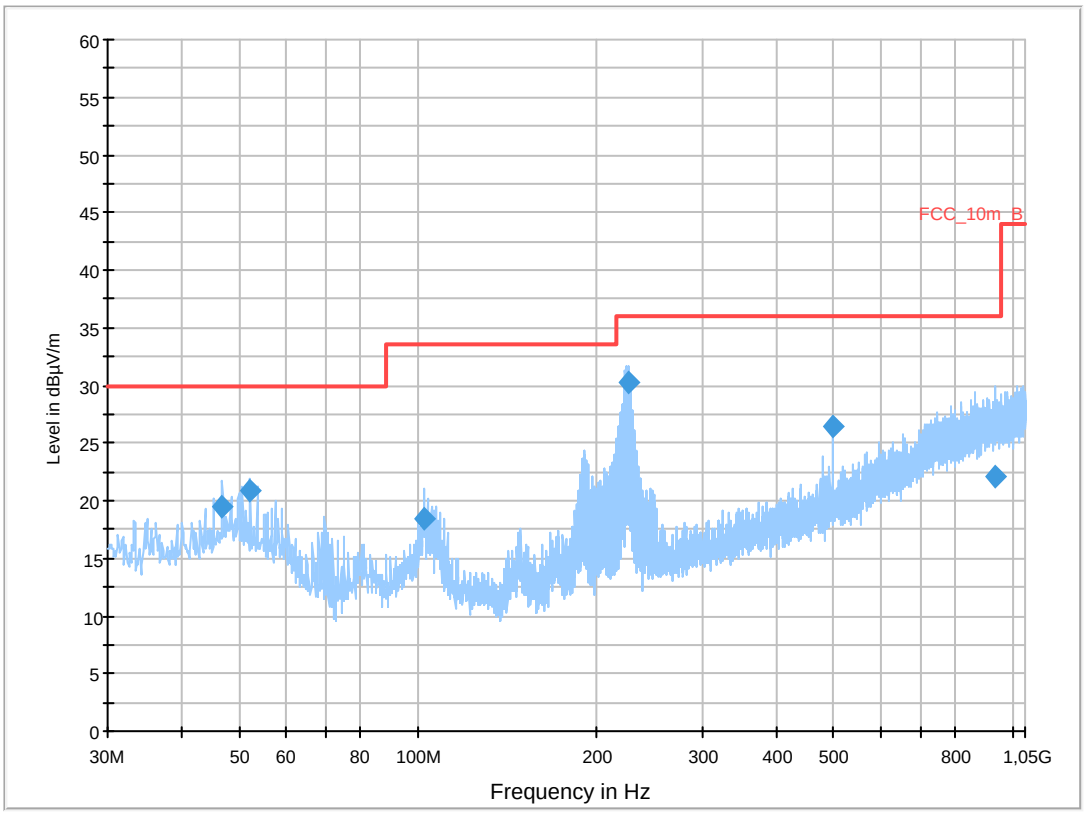
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan b-mode ch11
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

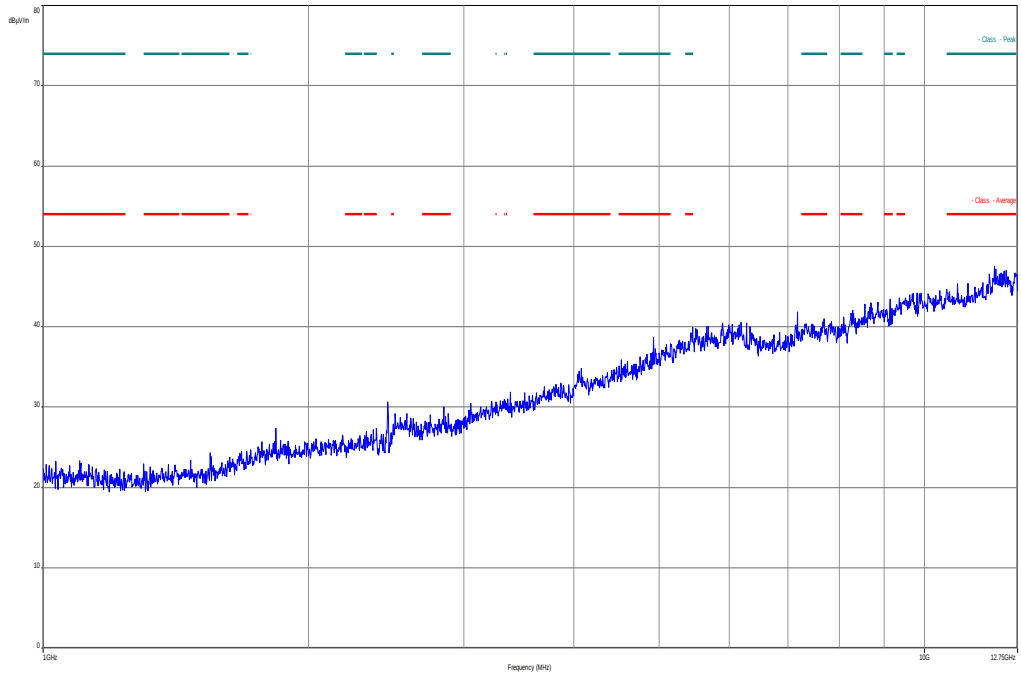
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

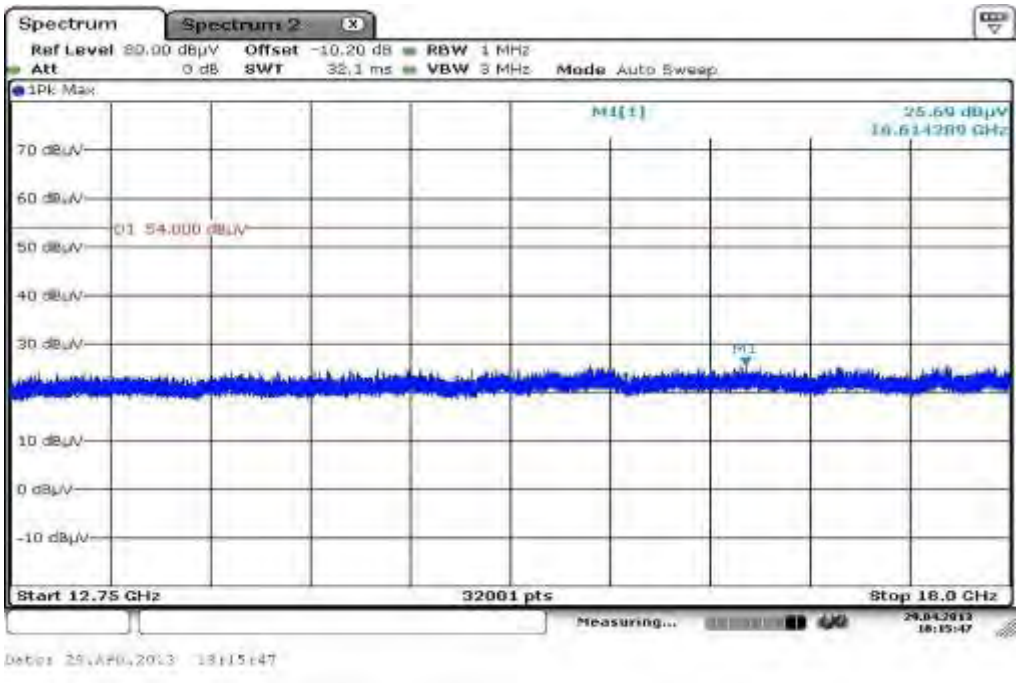
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
46.852500	19.5	1000.0	120.000	98.0	V	90.0	13.3	10.5	30.0	
52.144050	20.9	1000.0	120.000	98.0	V	-9.0	13.2	9.1	30.0	
102.069000	18.5	1000.0	120.000	120.0	V	268.0	11.7	15.0	33.5	
225.290700	30.3	1000.0	120.000	170.0	V	280.0	12.6	5.7	36.0	
500.011200	26.4	1000.0	120.000	170.0	H	190.0	18.7	9.6	36.0	
931.229550	22.0	1000.0	120.000	170.0	V	170.0	25.3	14.0	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

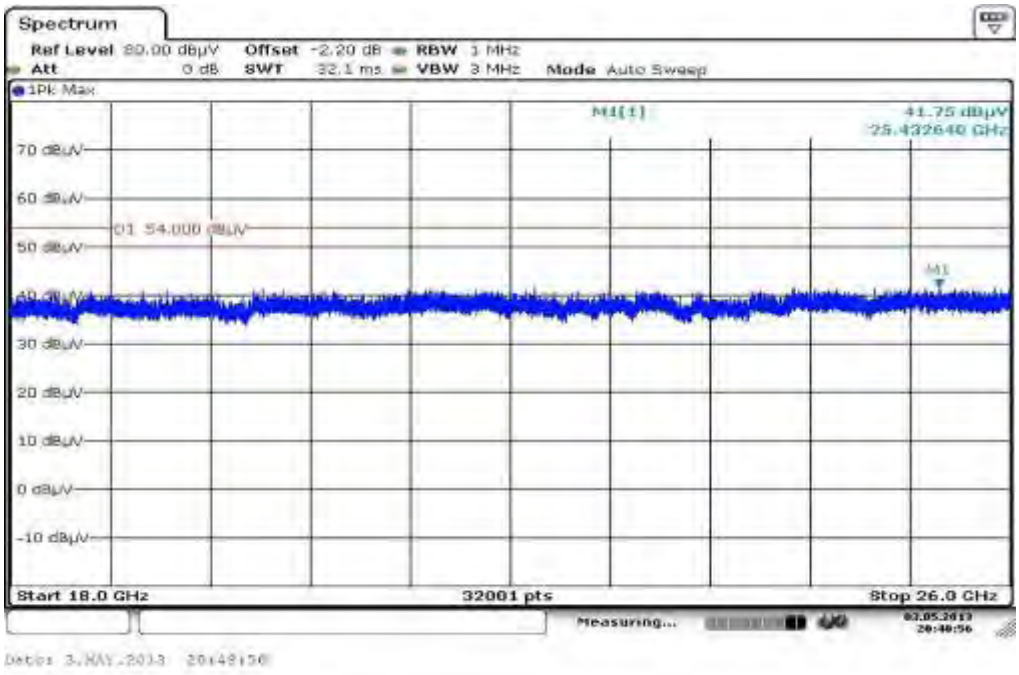


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / g – mode (ANT 453564175981)

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

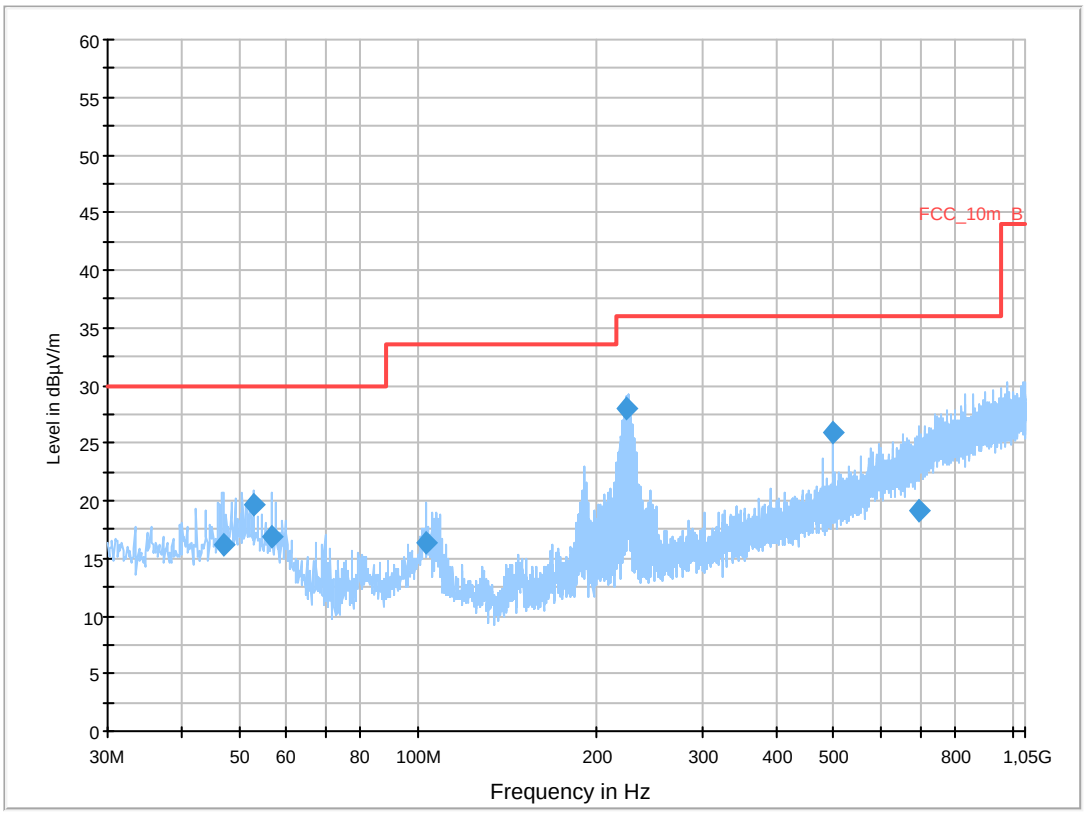
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan g-mode ch1
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

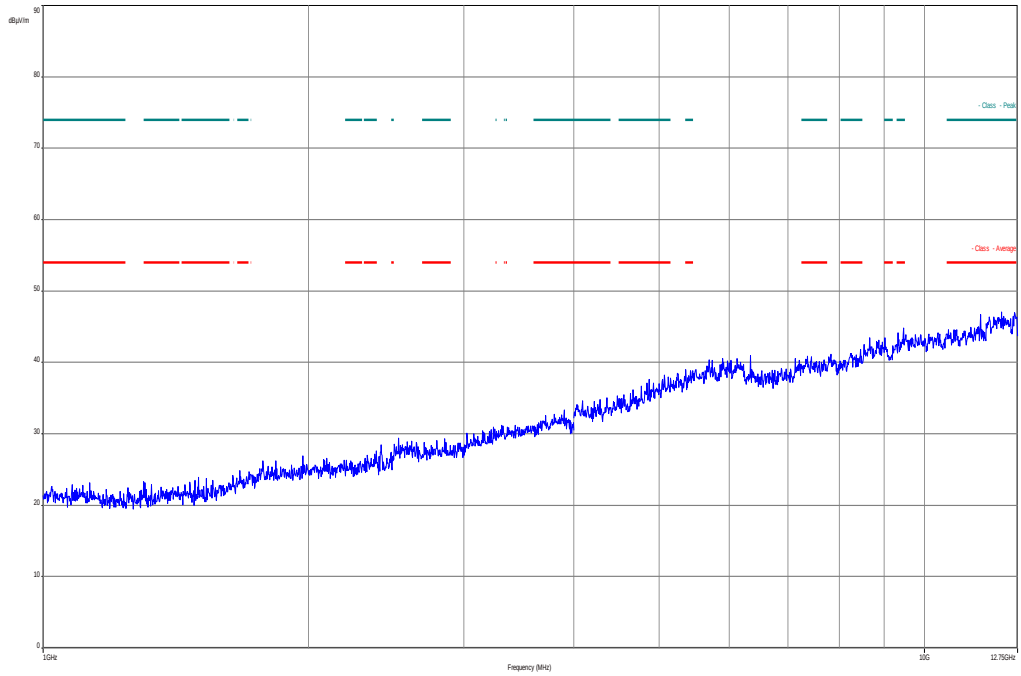
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

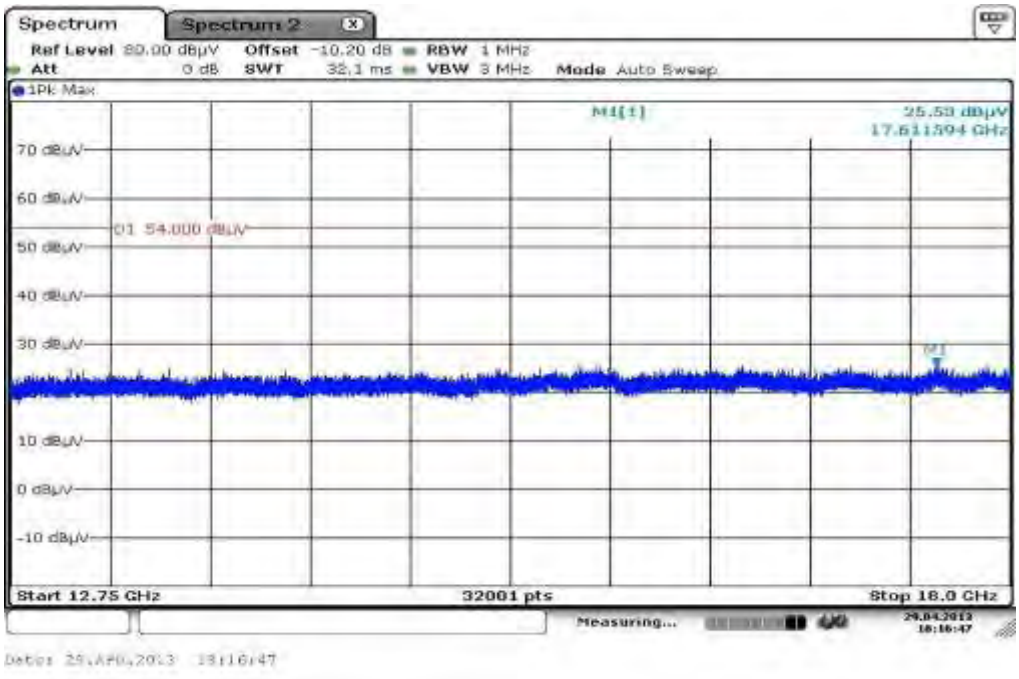
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
47.022600	16.2	1000.0	120.000	124.0	V	92.0	13.3	13.8	30.0	
53.002950	19.7	1000.0	120.000	98.0	V	268.0	13.1	10.3	30.0	
56.813100	16.9	1000.0	120.000	170.0	V	92.0	12.4	13.1	30.0	
102.994650	16.4	1000.0	120.000	98.0	V	10.0	11.6	17.1	33.5	
224.869200	28.0	1000.0	120.000	98.0	V	273.0	12.5	8.0	36.0	
499.972950	25.9	1000.0	120.000	170.0	H	10.0	18.7	10.1	36.0	
...	...	...	...	...	...	...	...	...	...	...

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

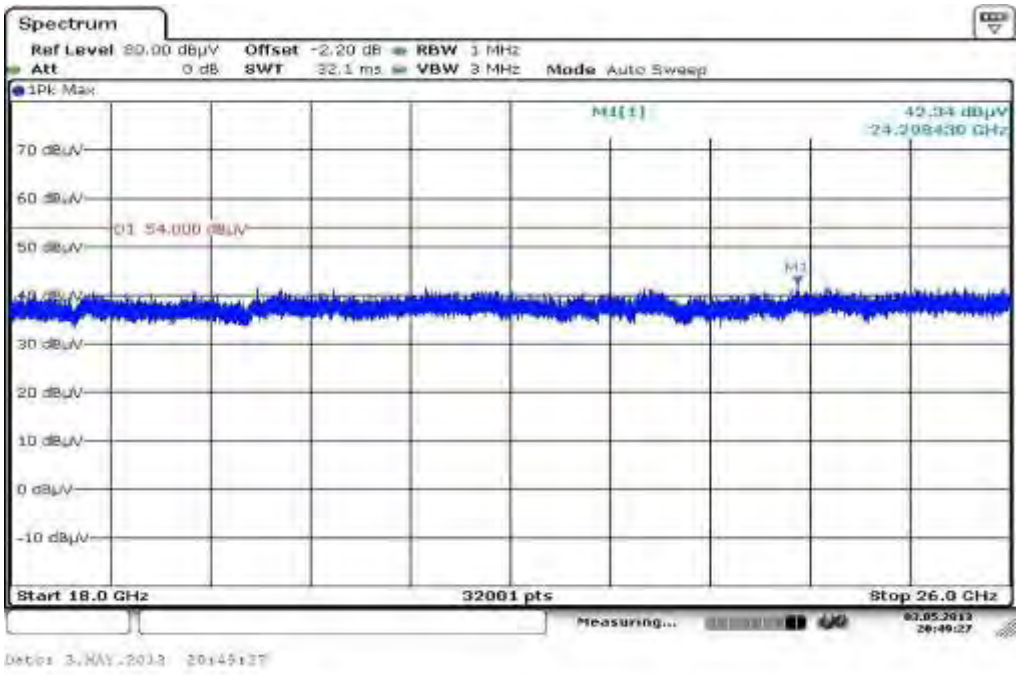


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

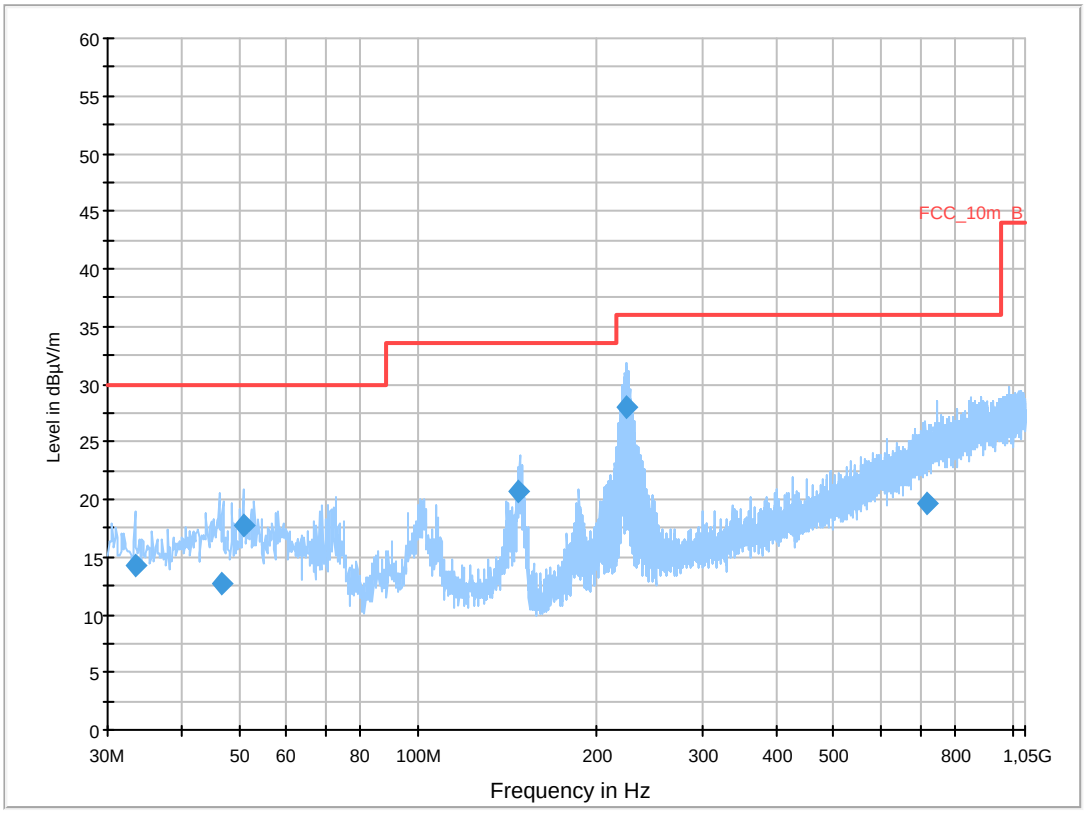
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan g-mode ch6
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

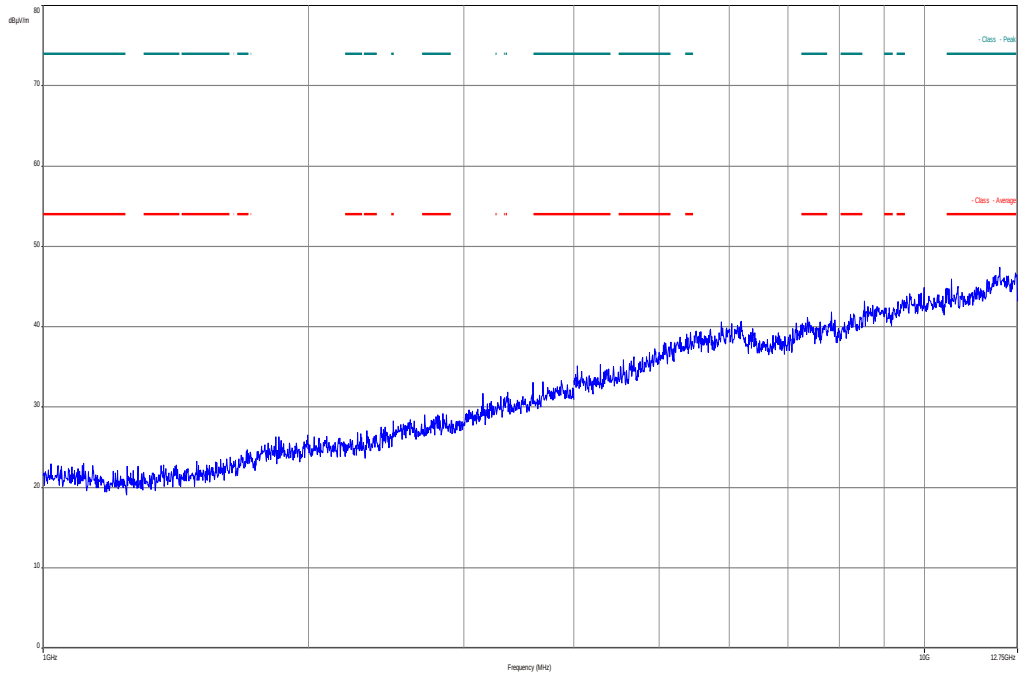
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

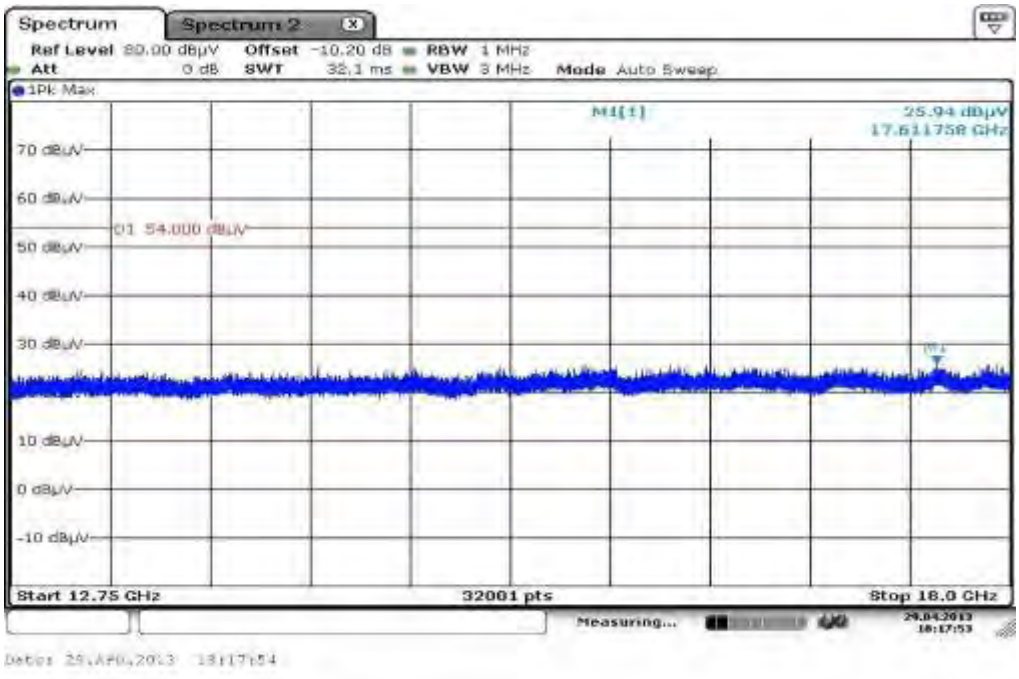
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
33.368550	14.3	1000.0	120.000	98.0	V	280.0	12.9	15.7	30.0	
46.757400	12.7	1000.0	120.000	98.0	V	267.0	13.3	17.3	30.0	
50.763600	17.7	1000.0	120.000	98.0	V	-9.0	13.3	12.3	30.0	
147.765750	20.7	1000.0	120.000	98.0	V	-2.0	8.9	12.8	33.5	
224.275500	28.0	1000.0	120.000	132.0	V	190.0	12.5	8.0	36.0	
715.196700	19.6	1000.0	120.000	170.0	V	268.0	22.9	16.4	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

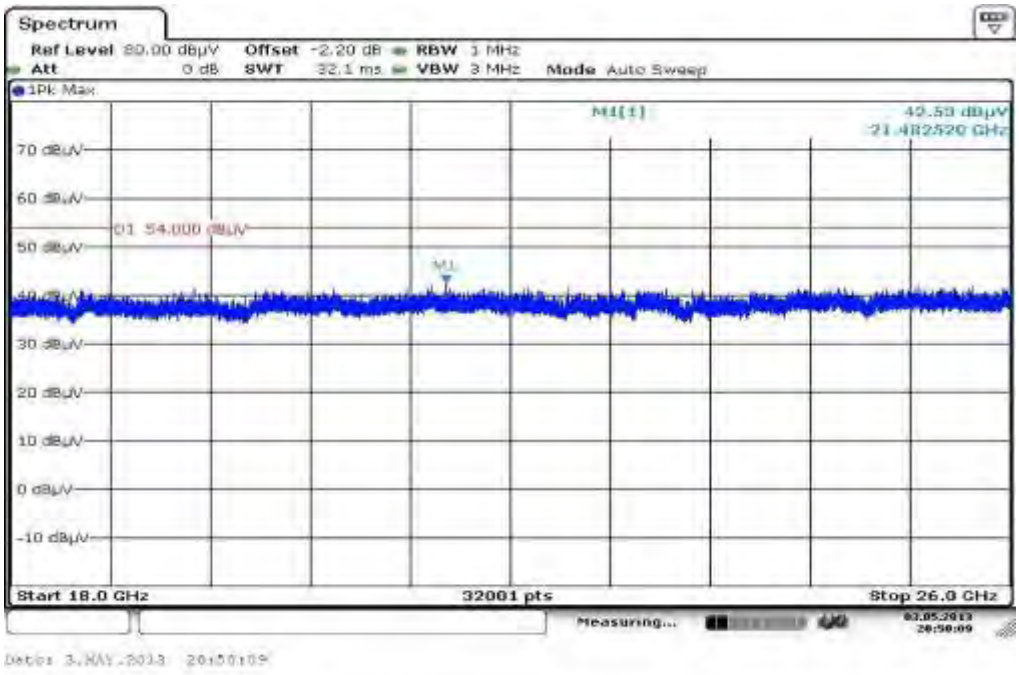


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

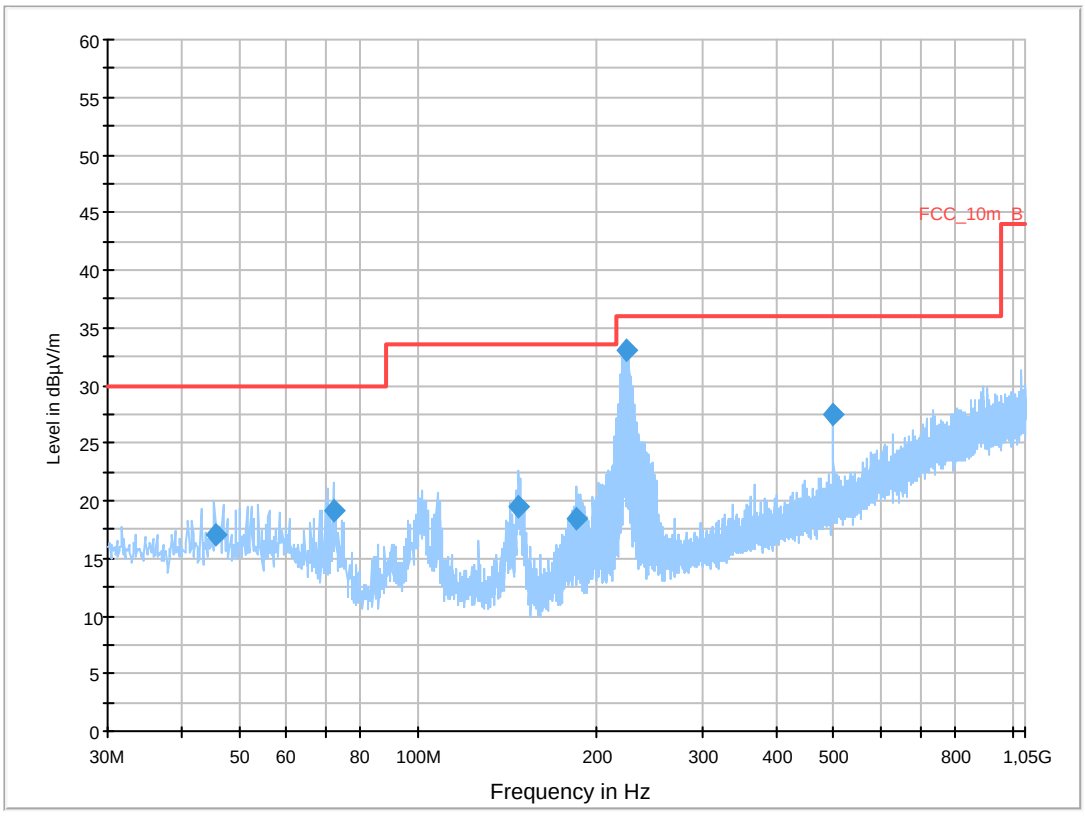
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan g-mode ch11
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

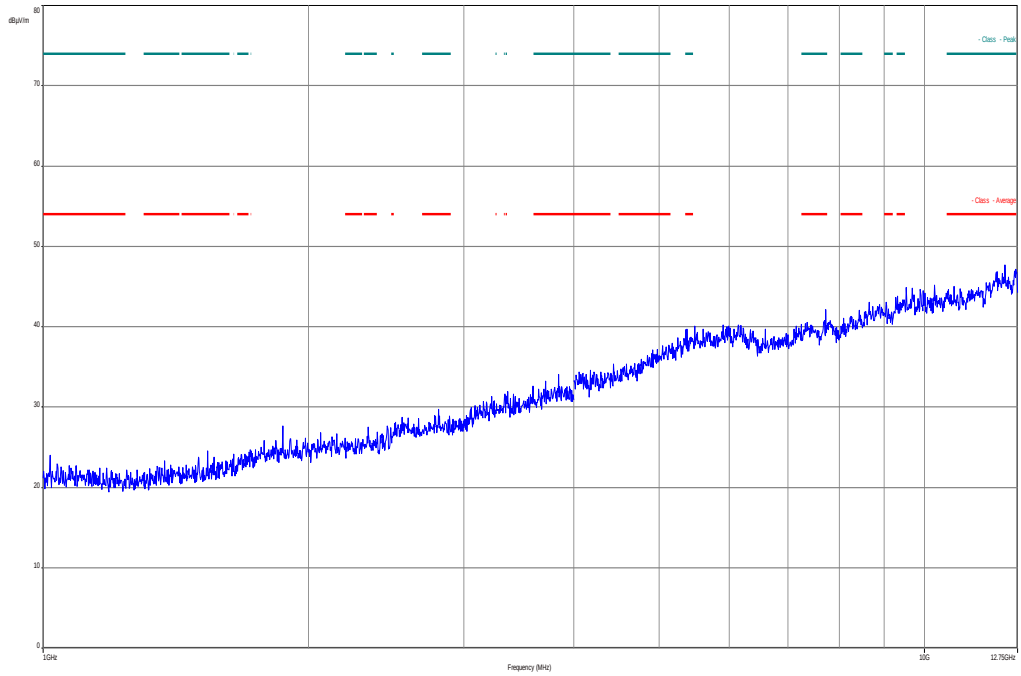
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

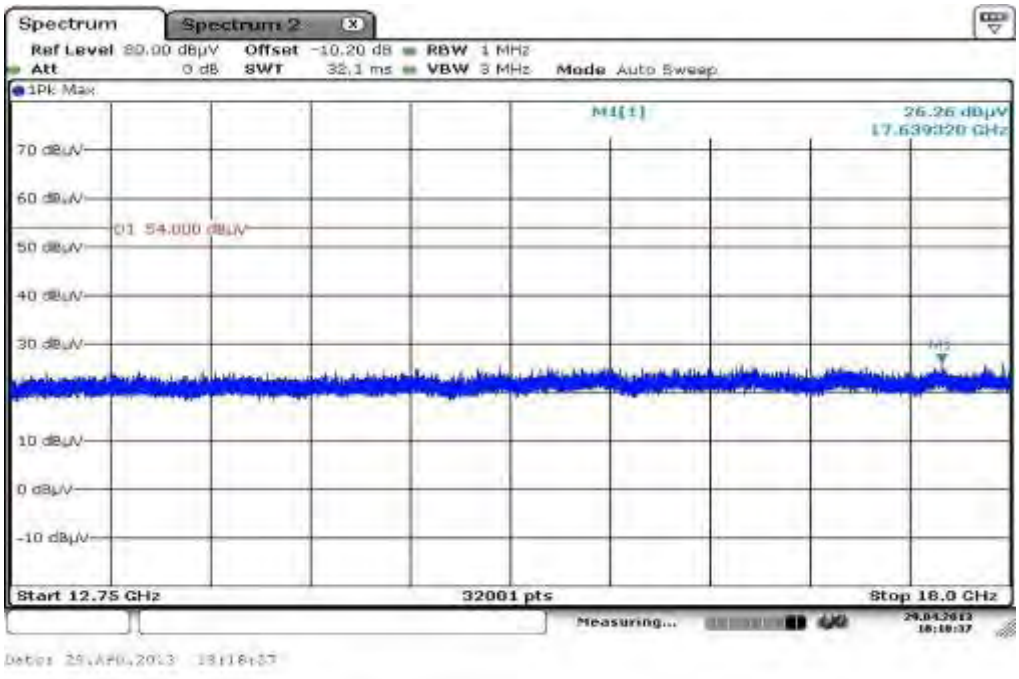
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.458400	17.1	1000.0	120.000	112.0	V	-9.0	13.3	12.9	30.0	
71.979900	19.1	1000.0	120.000	170.0	V	80.0	9.2	10.9	30.0	
147.769350	19.5	1000.0	120.000	105.0	V	10.0	8.9	14.0	33.5	
184.119150	18.4	1000.0	120.000	170.0	V	280.0	10.7	15.1	33.5	
223.518750	33.0	1000.0	120.000	145.0	V	280.0	12.5	3.0	36.0	
499.979700	27.5	1000.0	120.000	170.0	H	-3.0	18.7	8.5	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

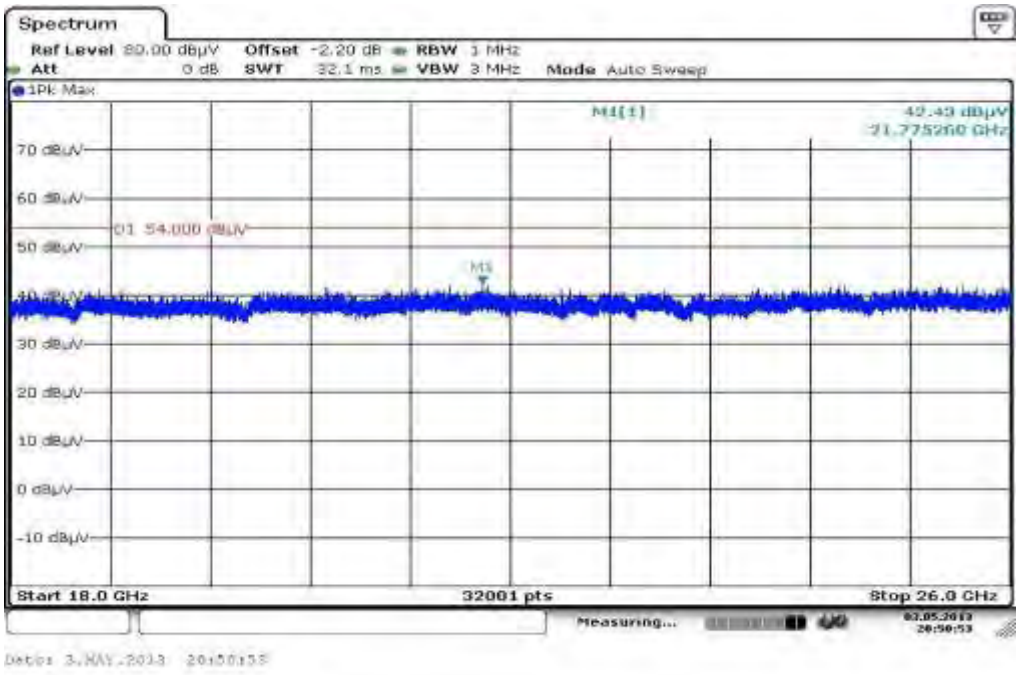


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / n – mode HT20 (ANT 453564175981)

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

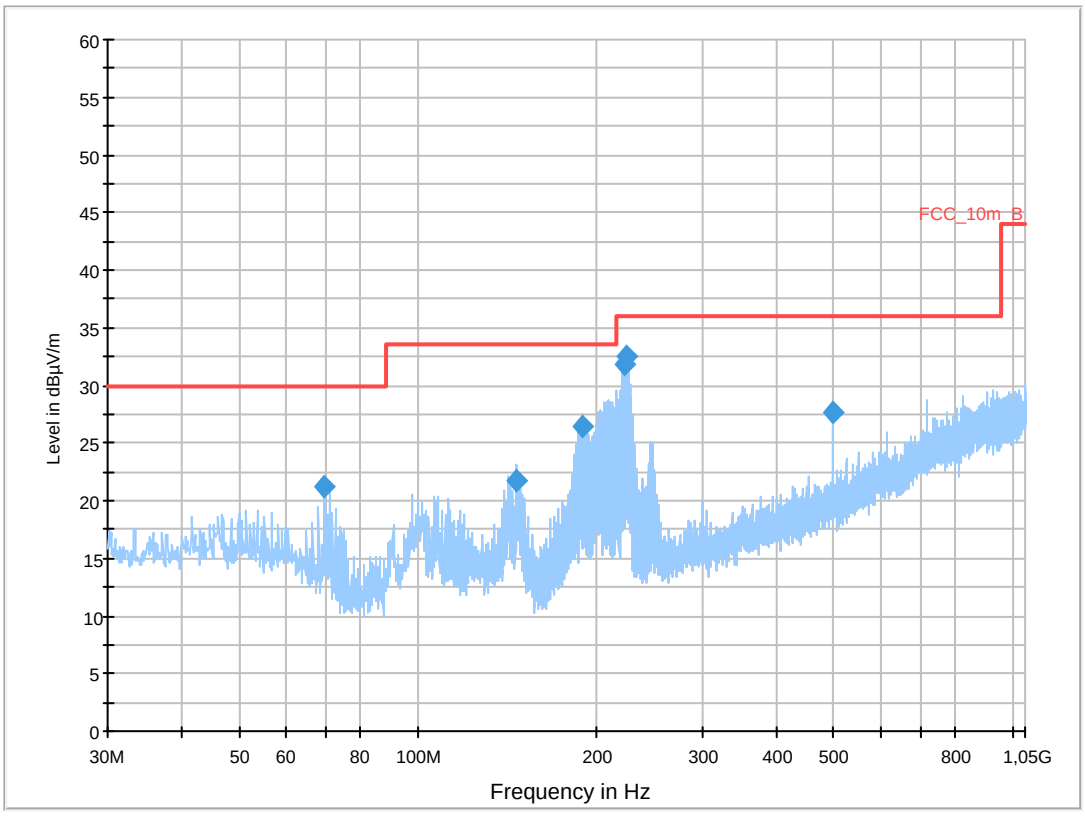
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT20 ch1
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

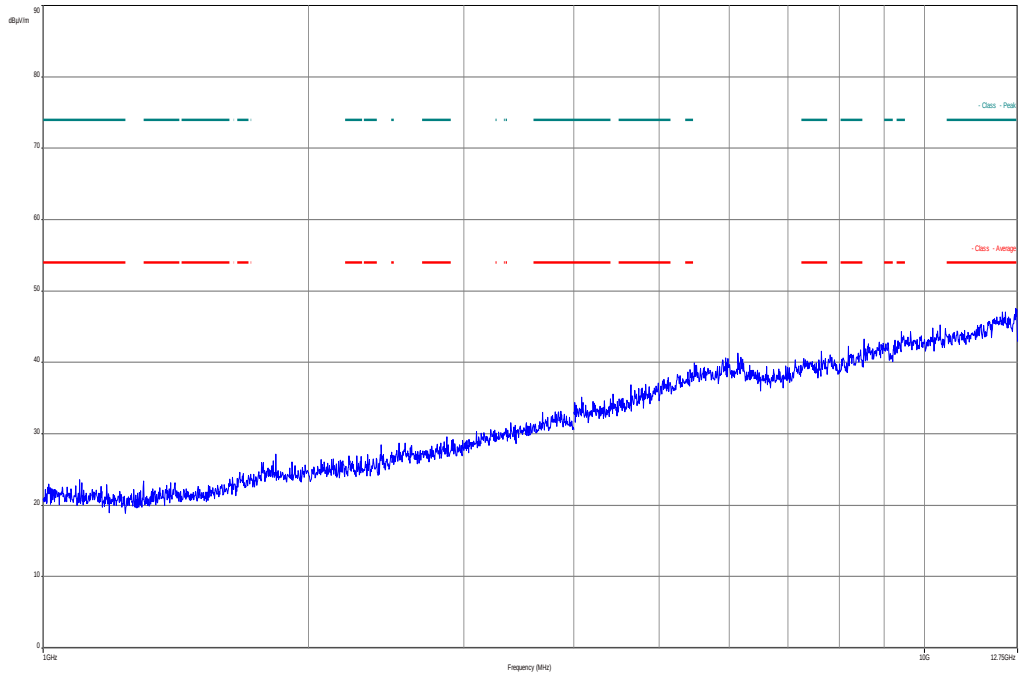
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

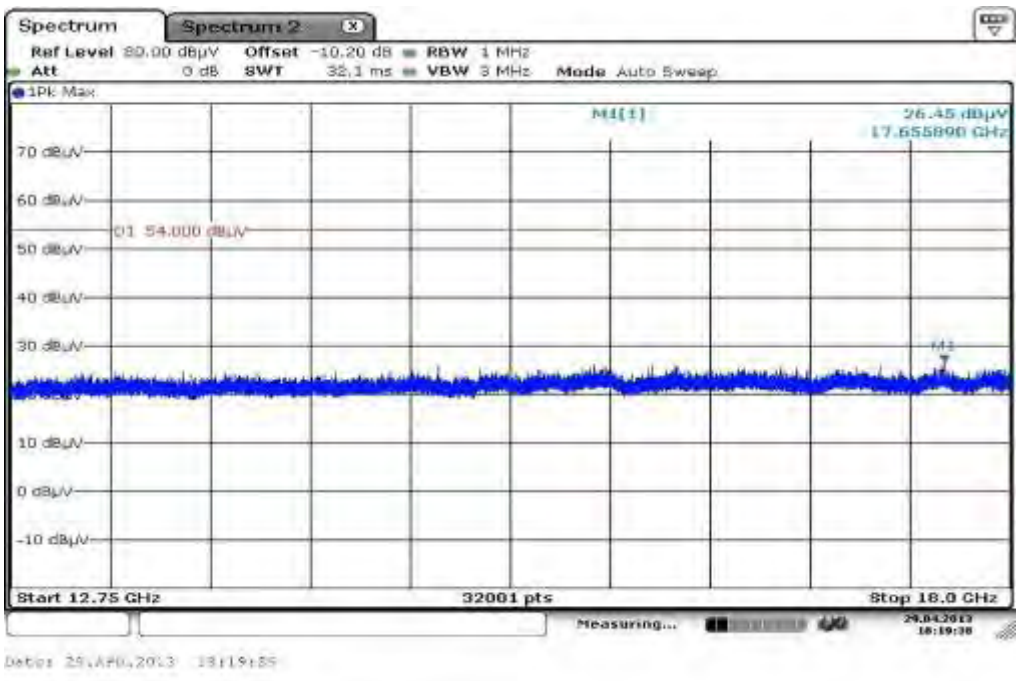
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
69.536400	21.2	1000.0	120.000	170.0	V	10.0	9.4	8.8	30.0	
146.616600	21.8	1000.0	120.000	104.0	V	280.0	8.8	11.7	33.5	
188.952900	26.5	1000.0	120.000	119.0	V	81.0	11.0	7.0	33.5	
221.442150	31.8	1000.0	120.000	98.0	V	0.0	12.4	4.2	36.0	
224.474100	32.5	1000.0	120.000	98.0	V	-3.0	12.5	3.5	36.0	
499.999050	27.7	1000.0	120.000	170.0	H	176.0	18.7	8.3	36.0	

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

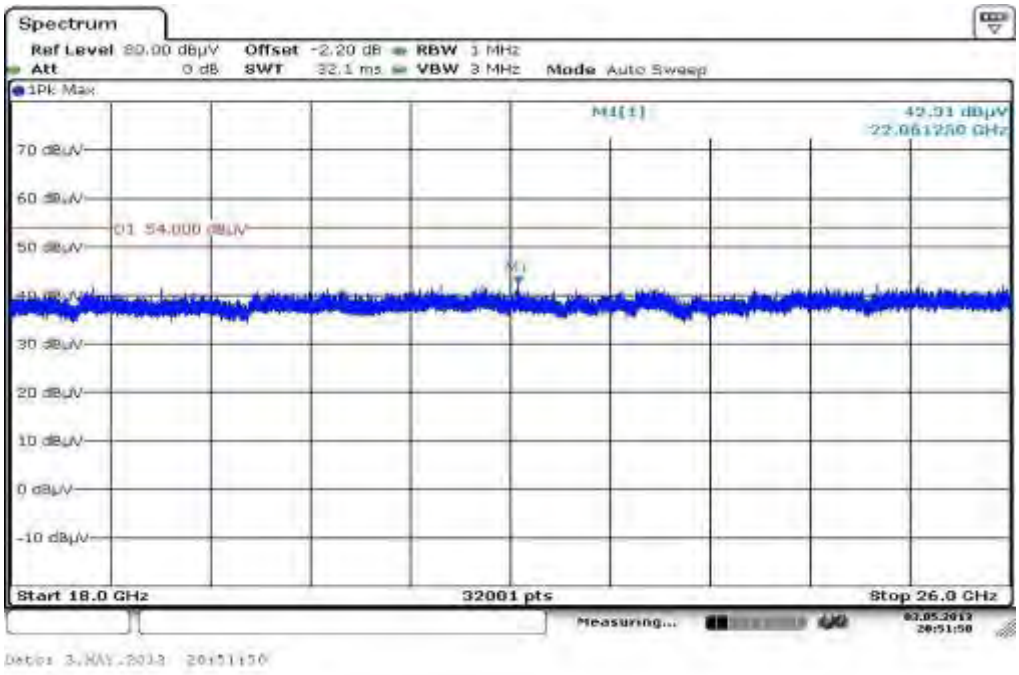


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

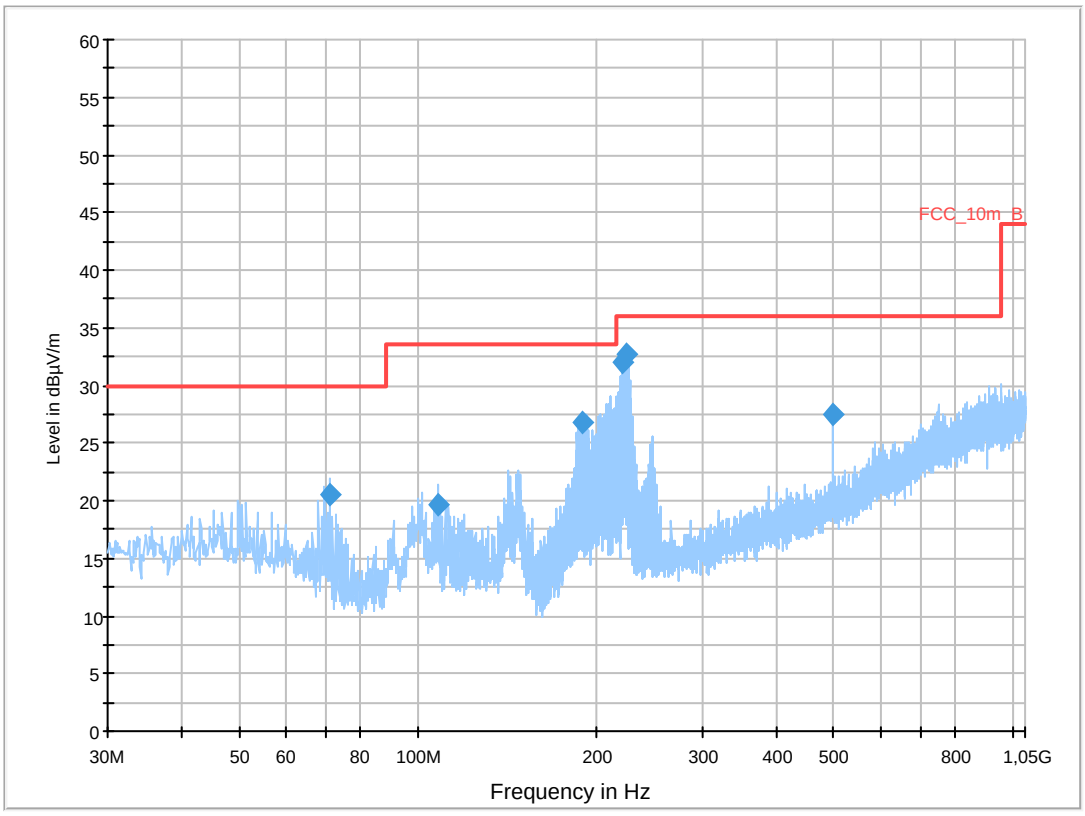
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT20 ch6
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

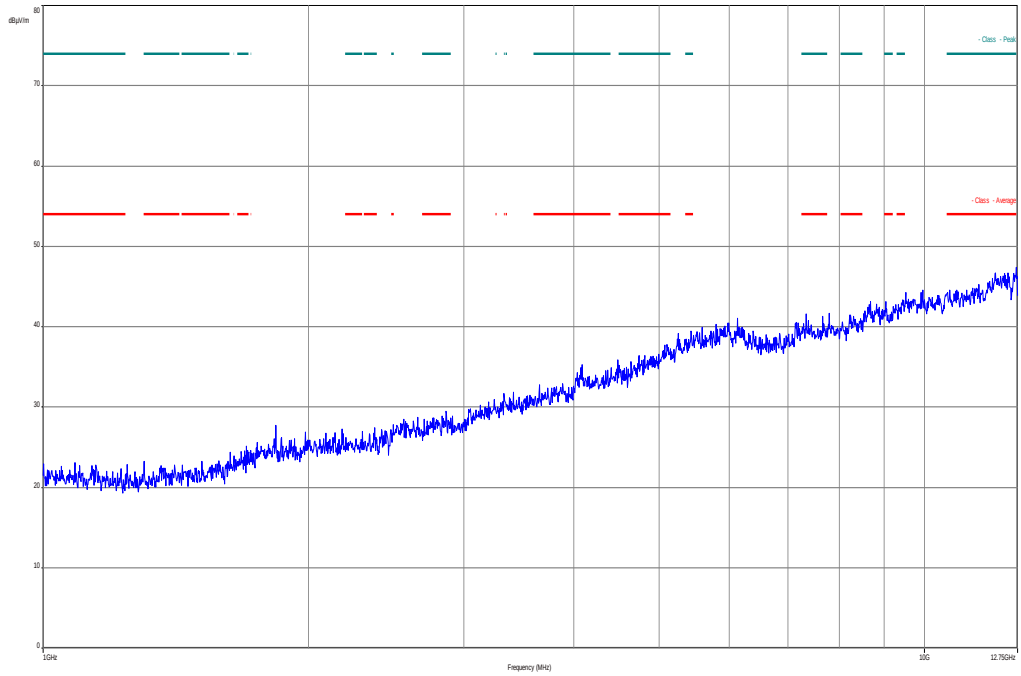
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

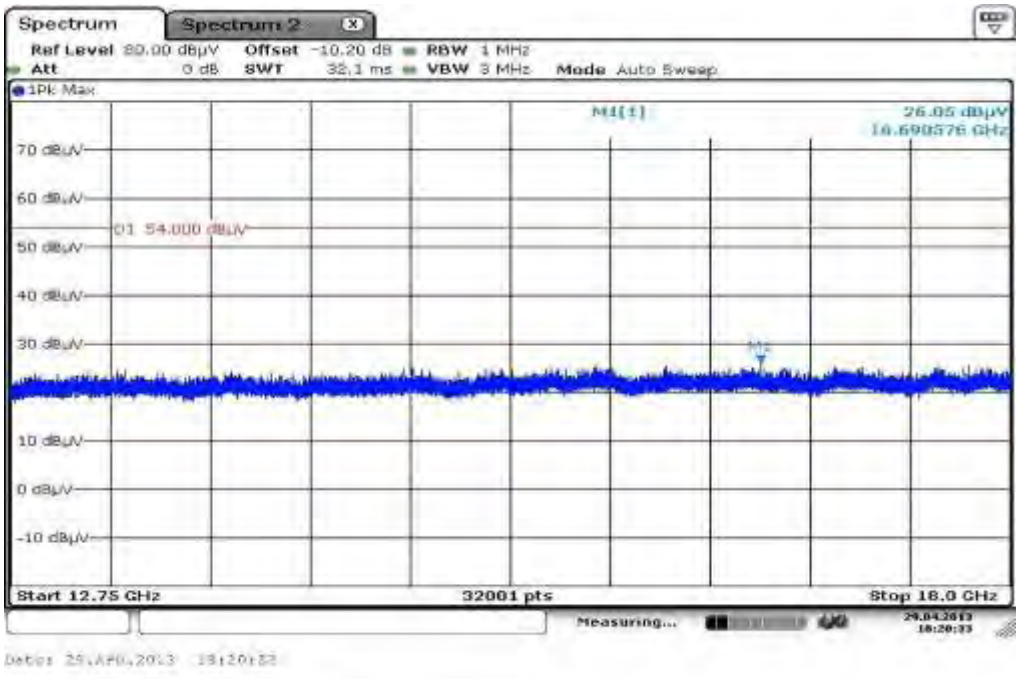
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
71.042100	20.5	1000.0	120.000	170.0	V	171.0	9.3	9.5	30.0	
108.077550	19.7	1000.0	120.000	170.0	V	10.0	11.2	13.8	33.5	
188.145000	26.7	1000.0	120.000	105.0	V	10.0	11.0	6.8	33.5	
221.376300	32.0	1000.0	120.000	98.0	V	-9.0	12.4	4.0	36.0	
224.430300	32.6	1000.0	120.000	161.0	V	-10.0	12.5	3.4	36.0	
499.995900	27.4	1000.0	120.000	170.0	H	-1.0	18.7	8.6	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

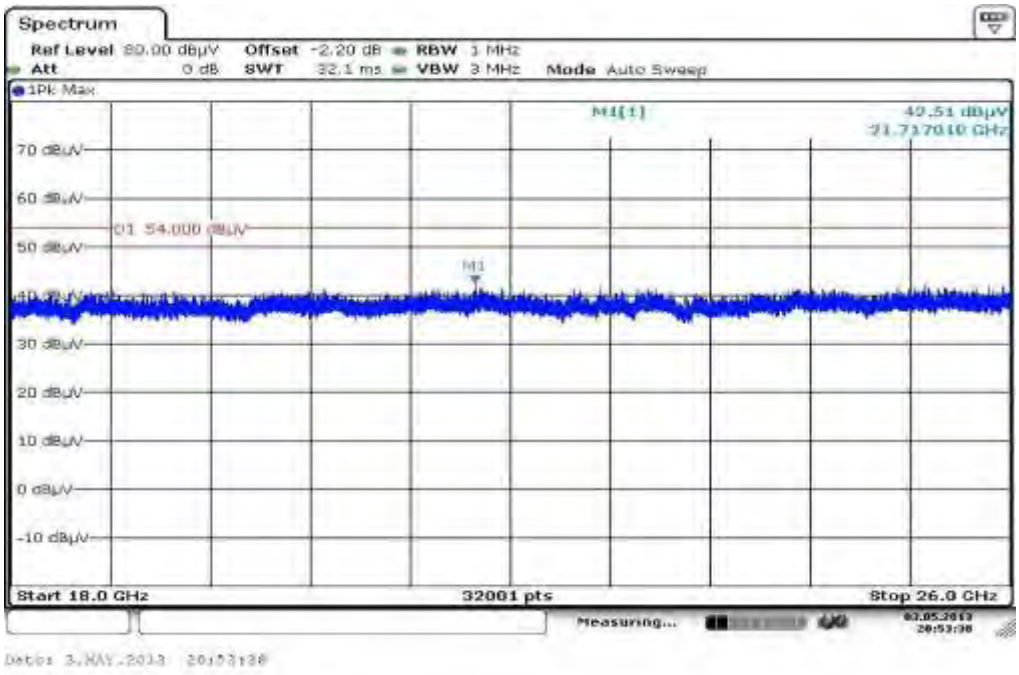


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

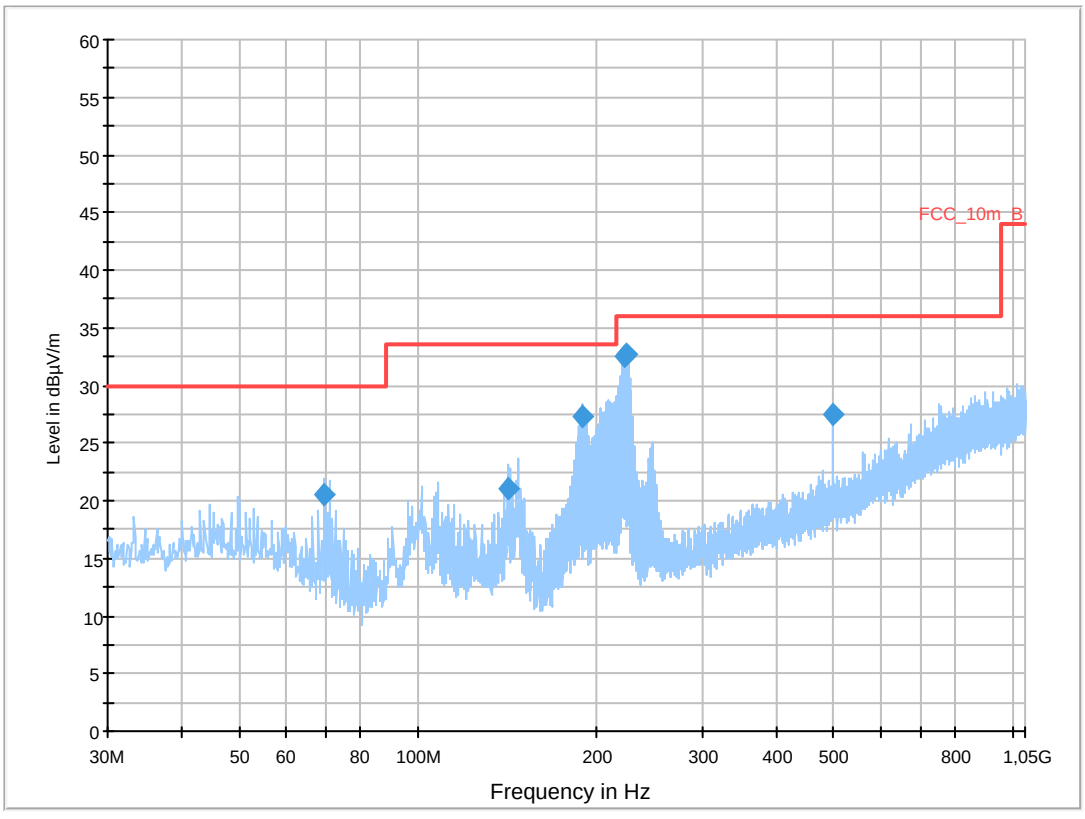
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT20 ch64
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

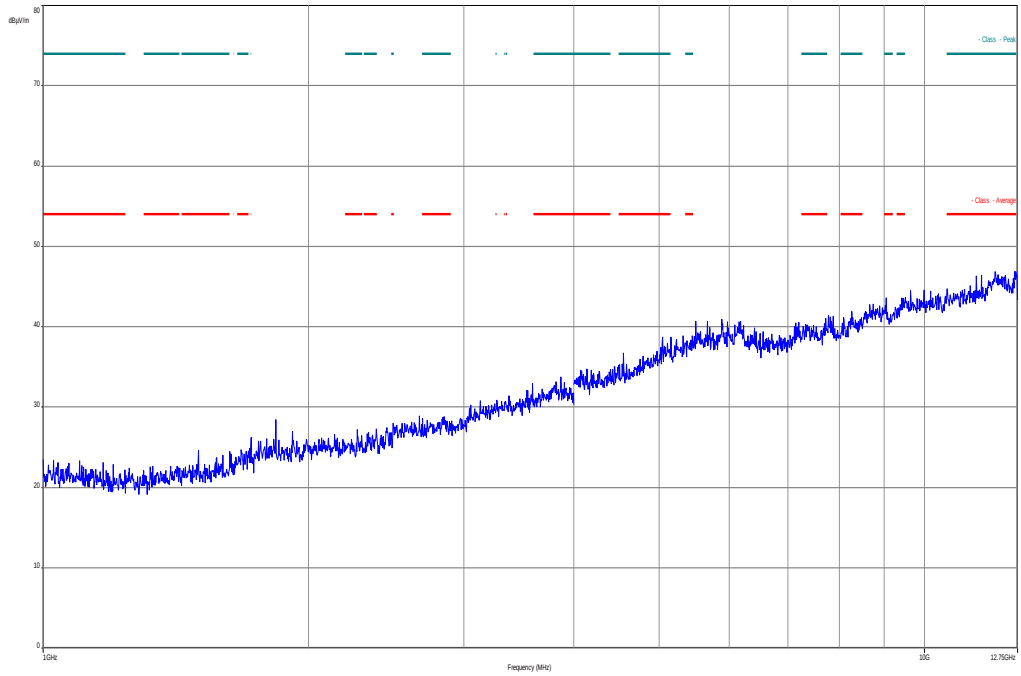
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

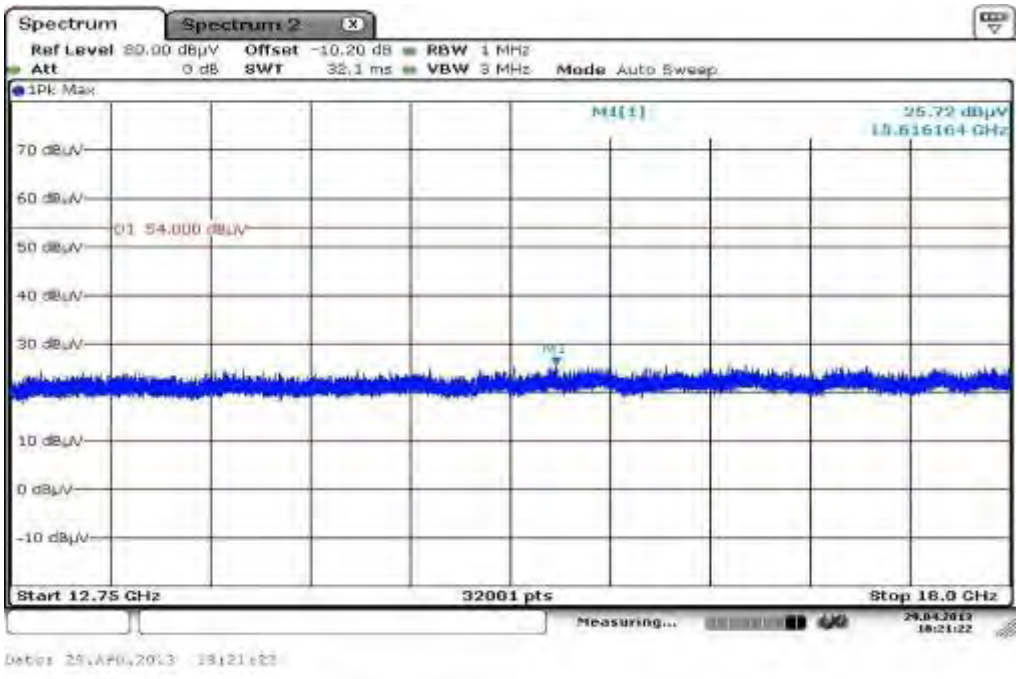
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
69.526800	20.6	1000.0	120.000	170.0	V	86.0	9.4	9.4	30.0	
141.303750	21.0	1000.0	120.000	111.0	V	190.0	8.7	12.5	33.5	
188.896500	27.2	1000.0	120.000	98.0	V	10.0	11.0	6.3	33.5	
222.858900	32.6	1000.0	120.000	170.0	V	-9.0	12.5	3.4	36.0	
224.366550	32.7	1000.0	120.000	98.0	V	-5.0	12.5	3.3	36.0	
500.003100	27.4	1000.0	120.000	170.0	H	-2.0	18.7	8.6	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

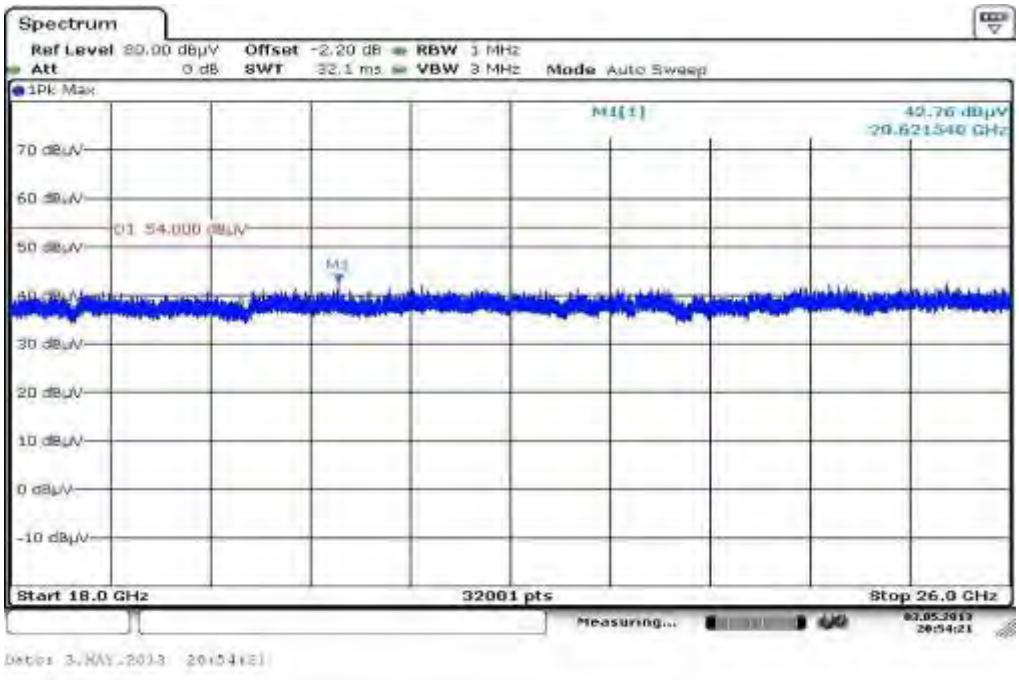


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / n – mode HT40 (ANT 453564175981)

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

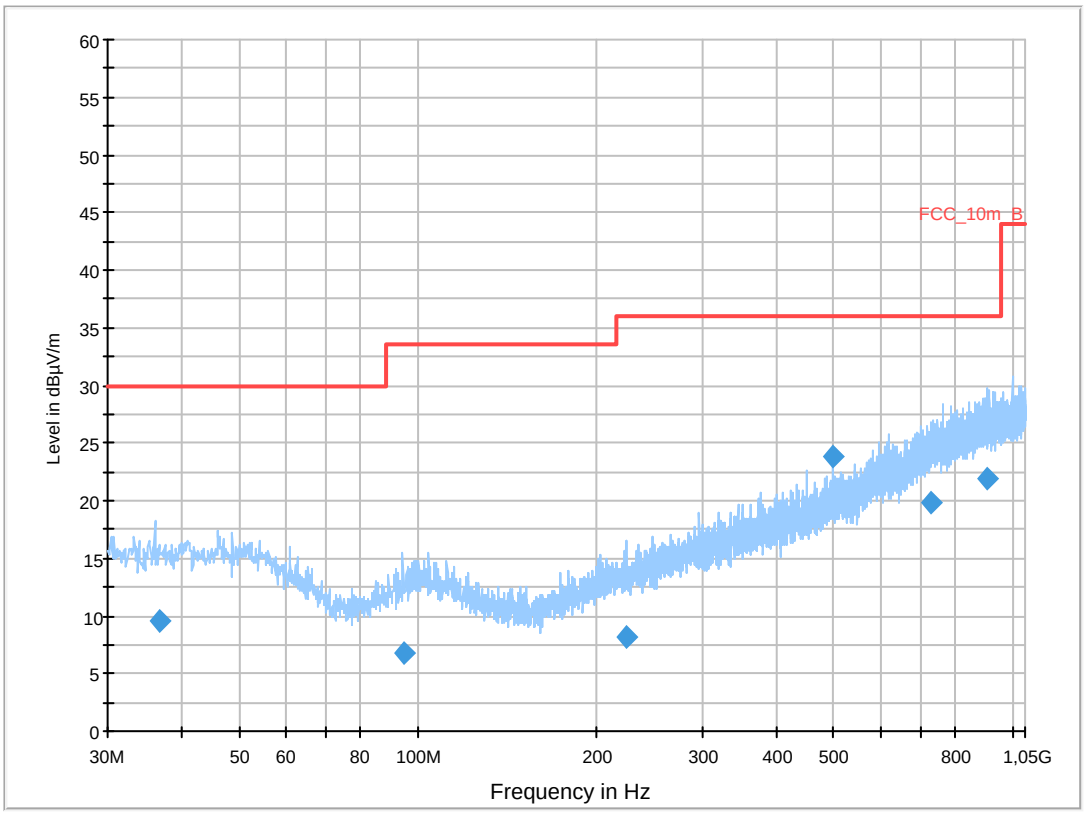
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT40 tx @ 2412MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

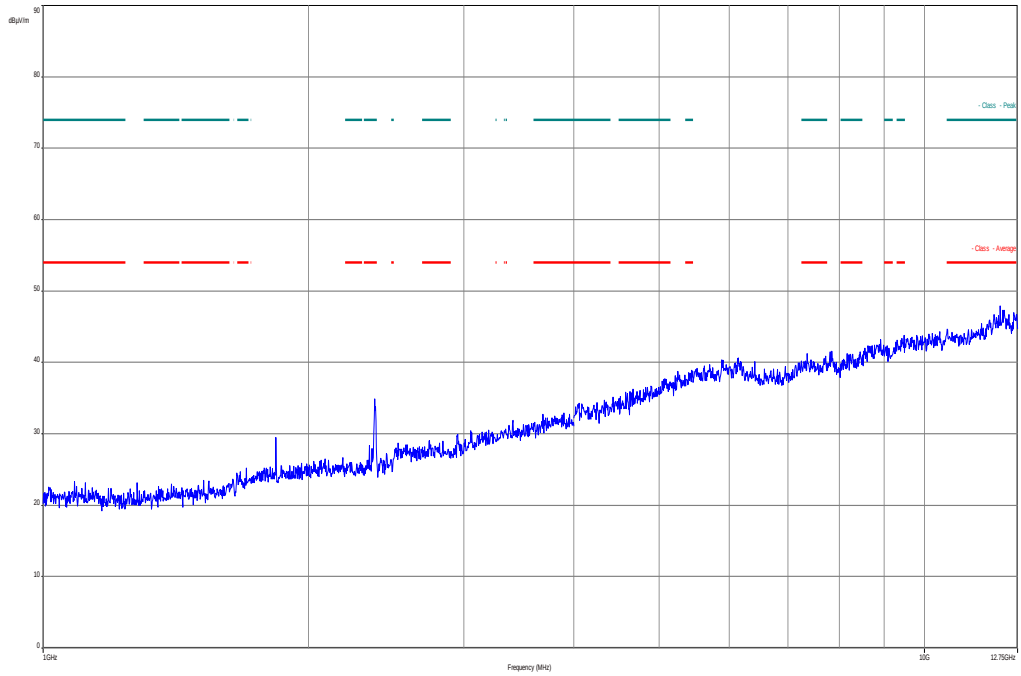
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

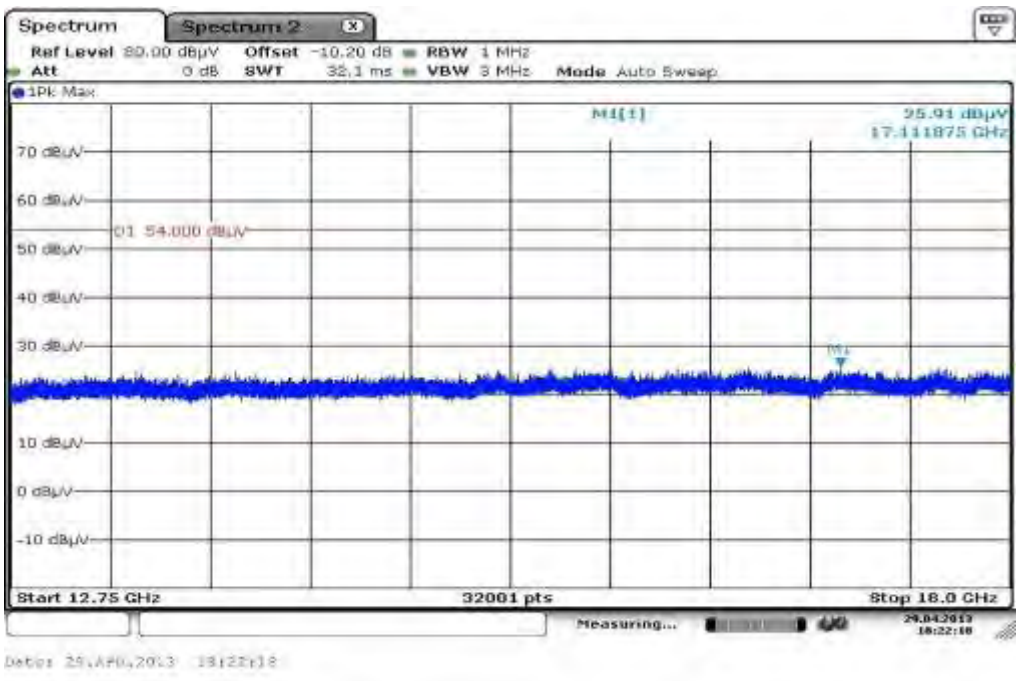
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
36.580050	9.6	1000.0	120.000	121.0	H	280.0	13.2	20.4	30.0	
94.641300	6.7	1000.0	120.000	146.0	H	176.0	11.2	26.8	33.5	
224.179650	8.1	1000.0	120.000	98.0	H	-10.0	12.5	27.9	36.0	
499.987200	23.9	1000.0	120.000	170.0	H	100.0	18.7	12.1	36.0	
726.220950	19.9	1000.0	120.000	98.0	V	10.0	23.1	16.1	36.0	
907.536450	22.0	1000.0	120.000	170.0	V	268.0	25.2	14.0	36.0	

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

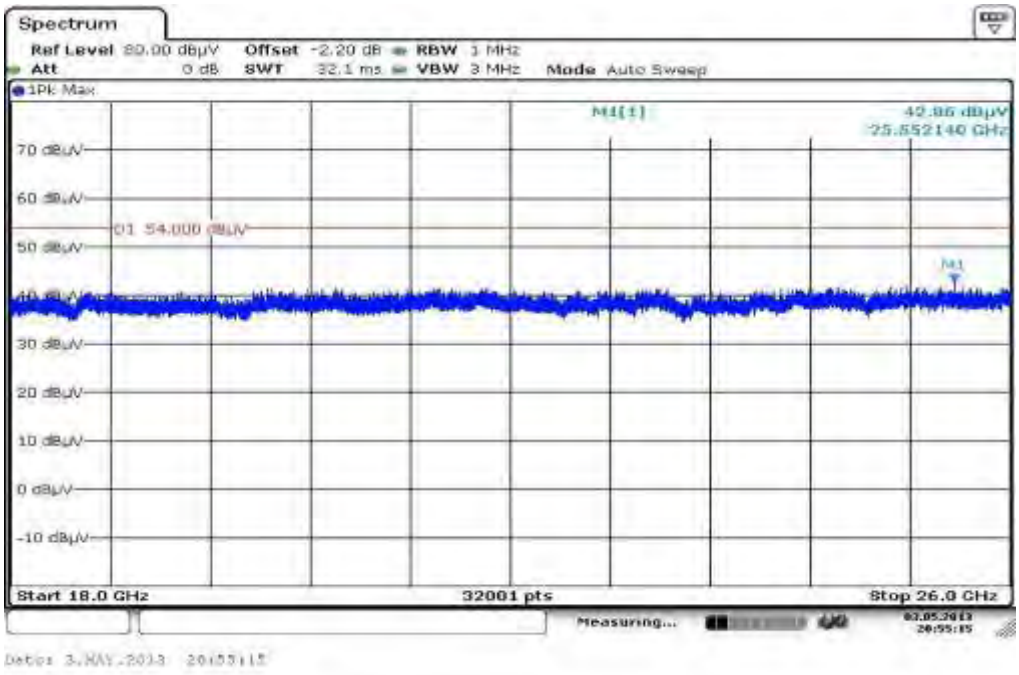


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

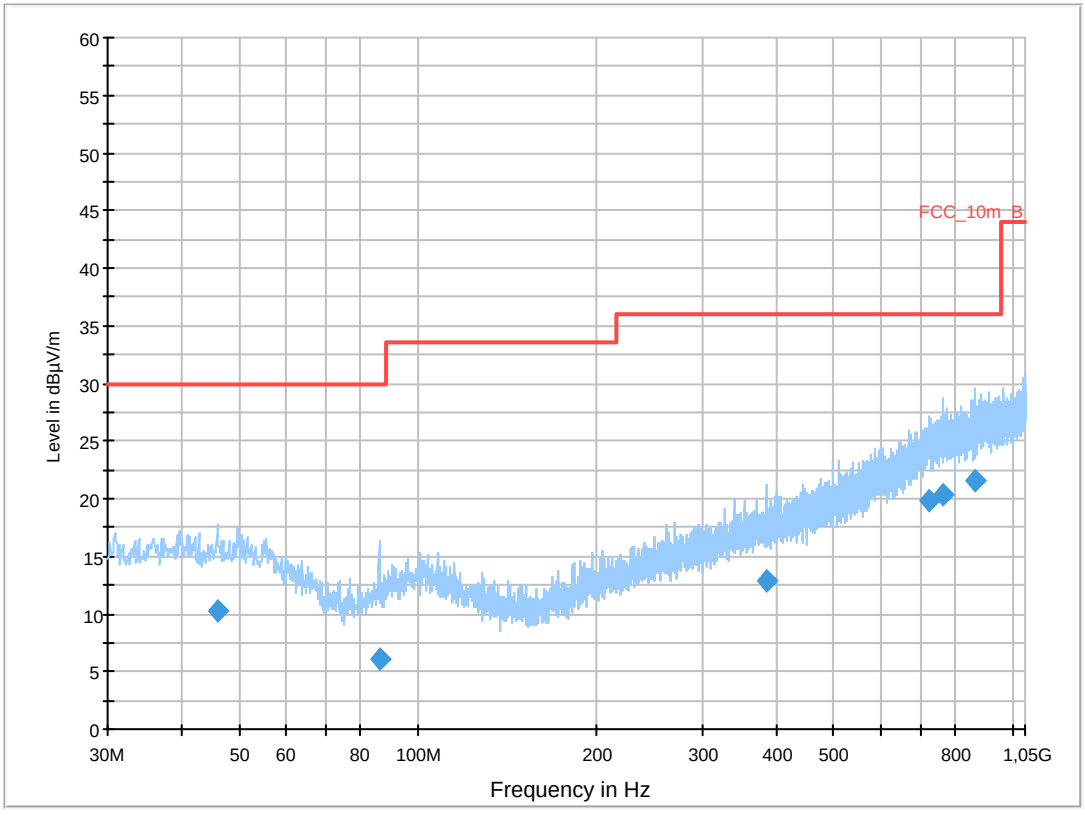
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT40 tx @ 2437MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

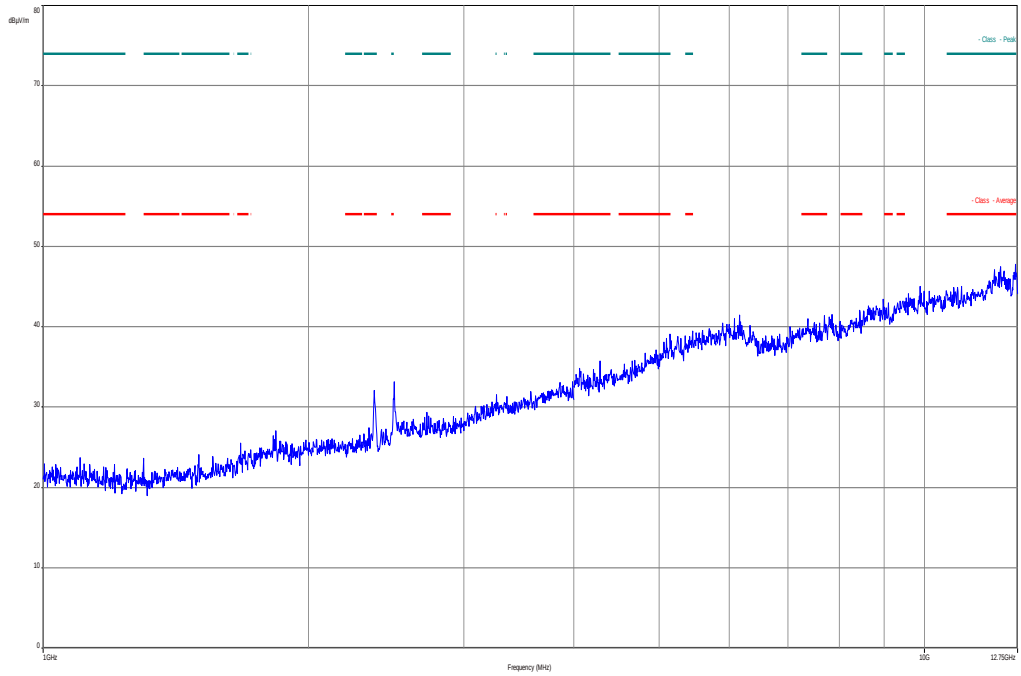
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

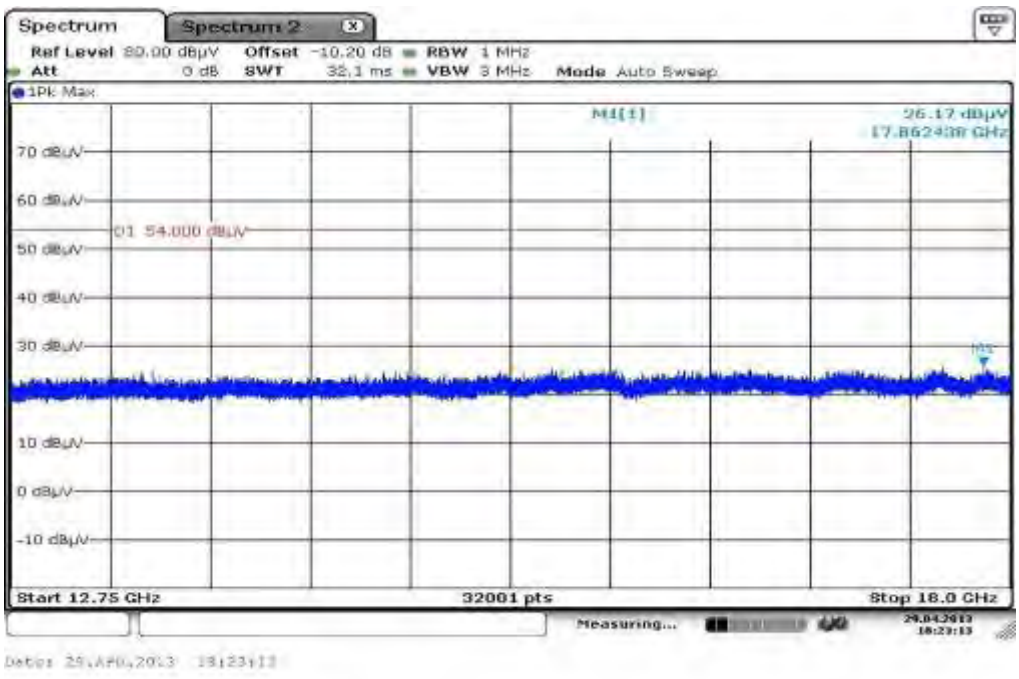
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
46.135050	10.2	1000.0	120.000	98.0	V	0.0	13.3	19.8	30.0	
86.086050	6.1	1000.0	120.000	170.0	V	280.0	10.0	23.9	30.0	
386.605200	12.8	1000.0	120.000	170.0	V	280.0	16.7	23.2	36.0	
722.422950	19.9	1000.0	120.000	170.0	H	100.0	23.0	16.1	36.0	
762.998100	20.4	1000.0	120.000	170.0	V	100.0	23.7	15.6	36.0	
867.166050	21.6	1000.0	120.000	170.0	H	265.0	24.8	14.4	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

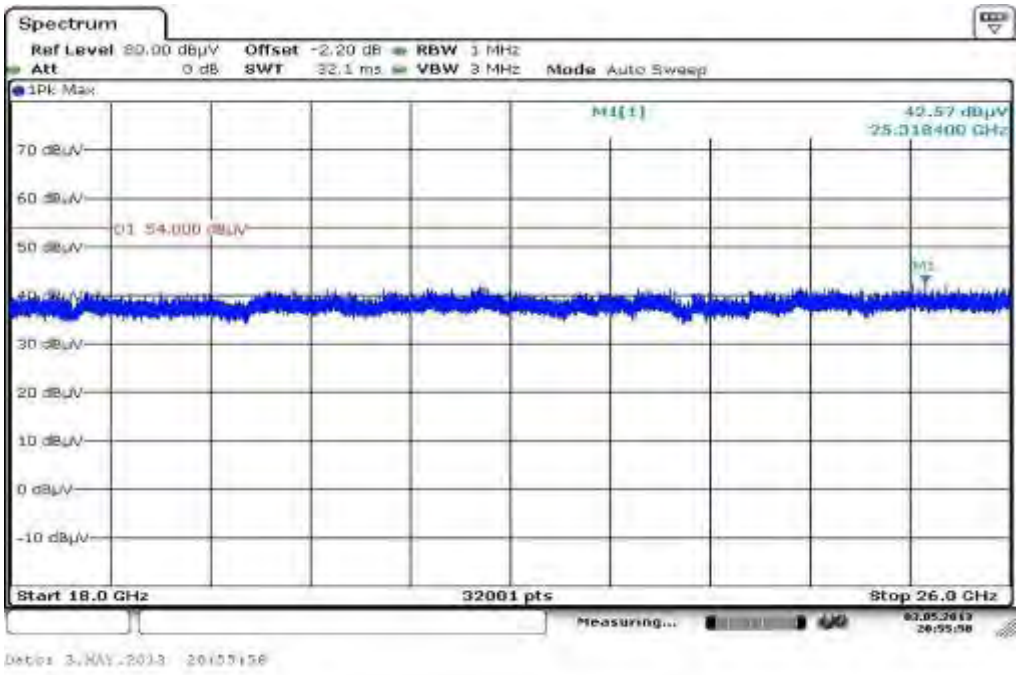


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

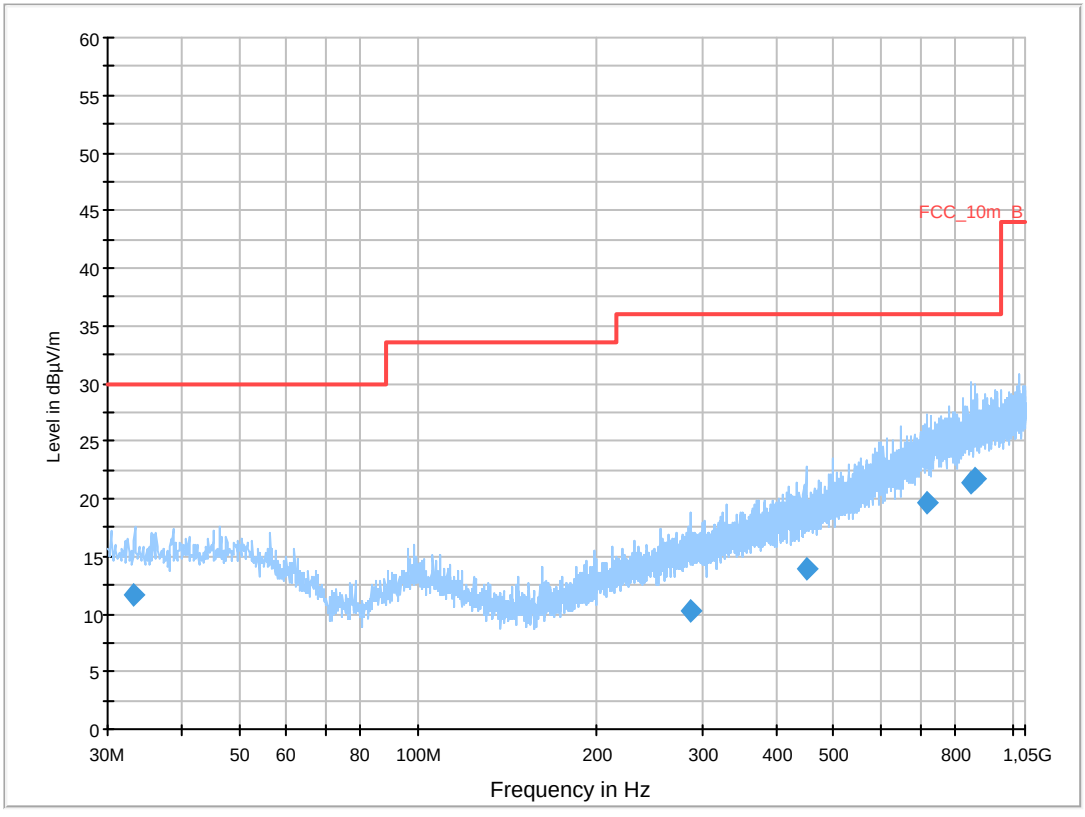
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan n-mode HT40 tx @ 2452MHz
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

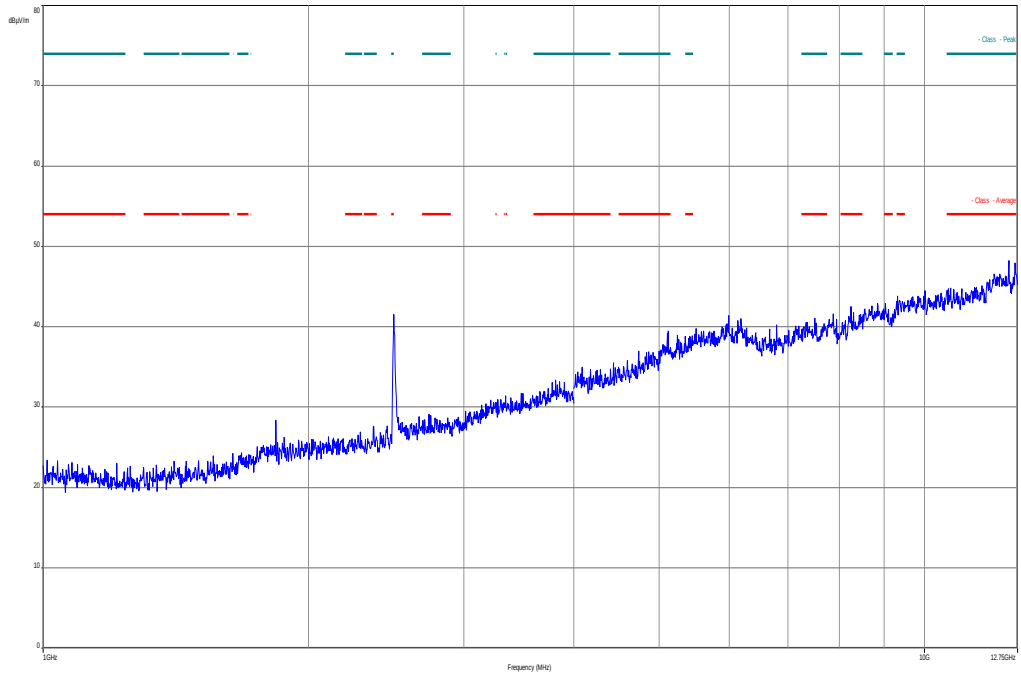
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

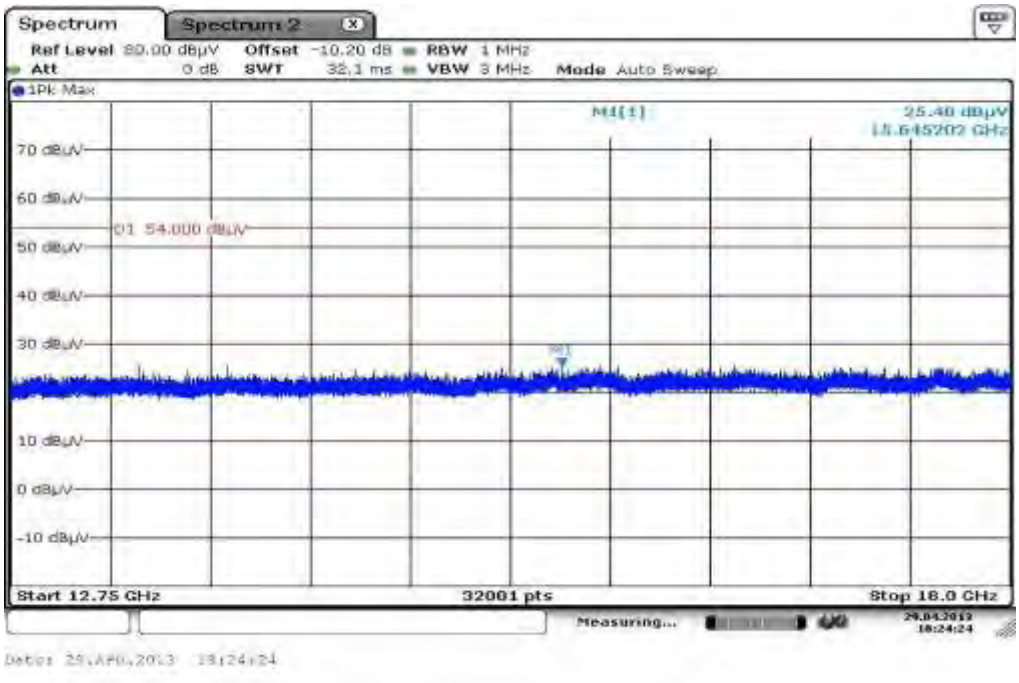
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
33.304800	11.6	1000.0	120.000	170.0	V	280.0	12.9	18.4	30.0	
286.882200	10.2	1000.0	120.000	170.0	V	10.0	14.2	25.8	36.0	
449.303850	13.8	1000.0	120.000	170.0	V	171.0	17.6	22.2	36.0	
718.646850	19.7	1000.0	120.000	104.0	V	170.0	22.9	16.3	36.0	
853.507050	21.4	1000.0	120.000	170.0	V	93.0	24.6	14.6	36.0	
867.417150	21.7	1000.0	120.000	123.0	V	280.0	24.8	14.3	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

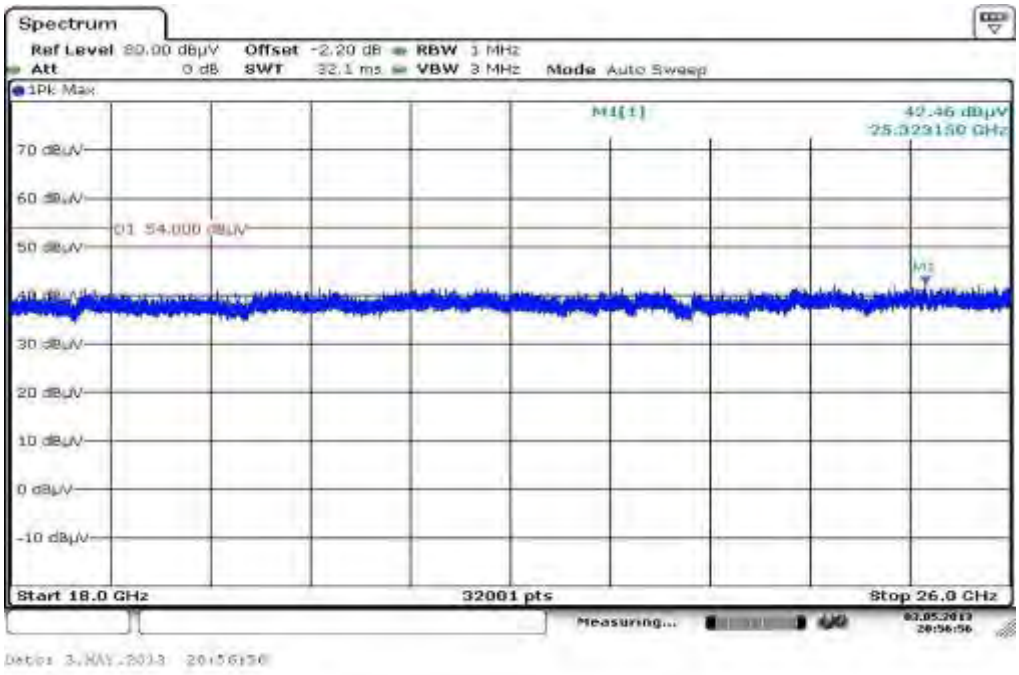


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: DSSS / b – mode (ANT 453564271931)

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

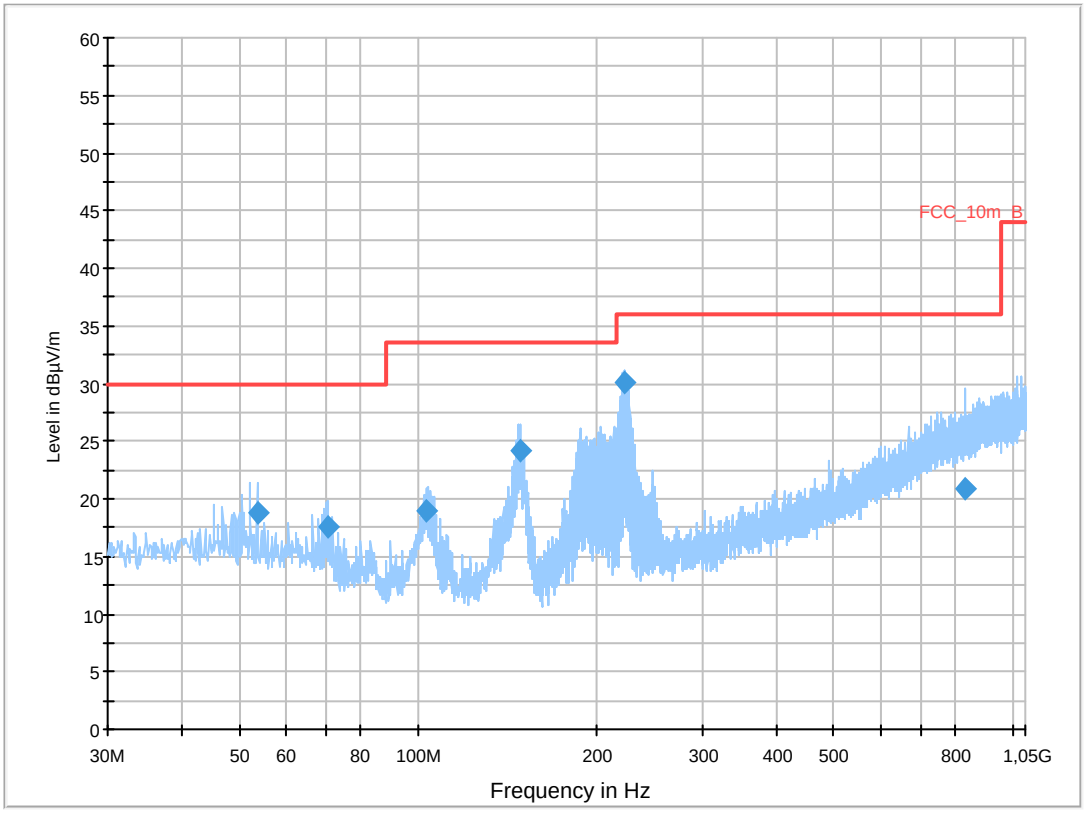
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx b-mode ch1
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

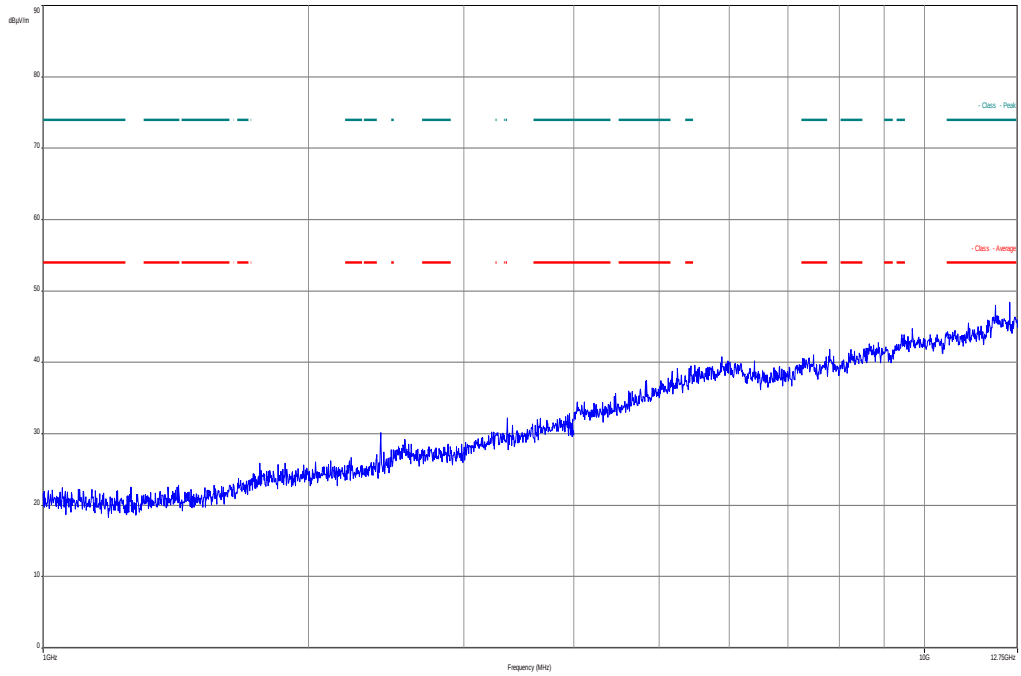
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

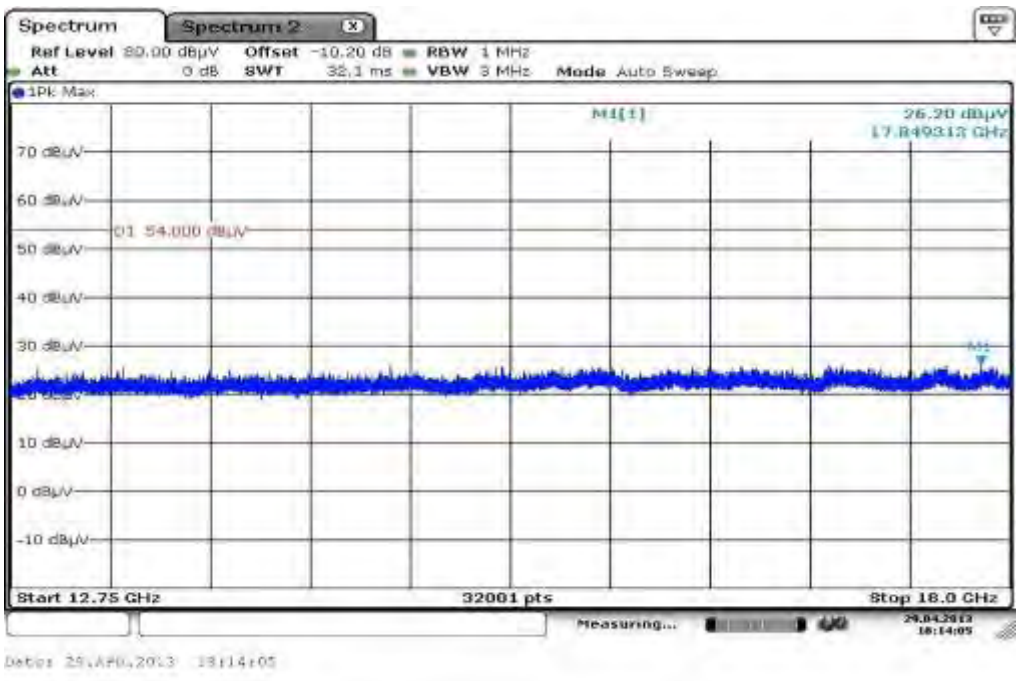
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
53.593200	18.8	1000.0	120.000	105.0	V	88.0	13.0	11.2	30.0	
70.208850	17.6	1000.0	120.000	170.0	V	88.0	9.3	12.4	30.0	
103.428000	19.0	1000.0	120.000	104.0	V	-2.0	11.6	14.5	33.5	
148.701750	24.1	1000.0	120.000	98.0	V	80.0	8.9	9.4	33.5	
221.885100	30.1	1000.0	120.000	170.0	V	268.0	12.4	5.9	36.0	
832.850850	20.9	1000.0	120.000	144.0	V	100.0	24.3	15.1	36.0	

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

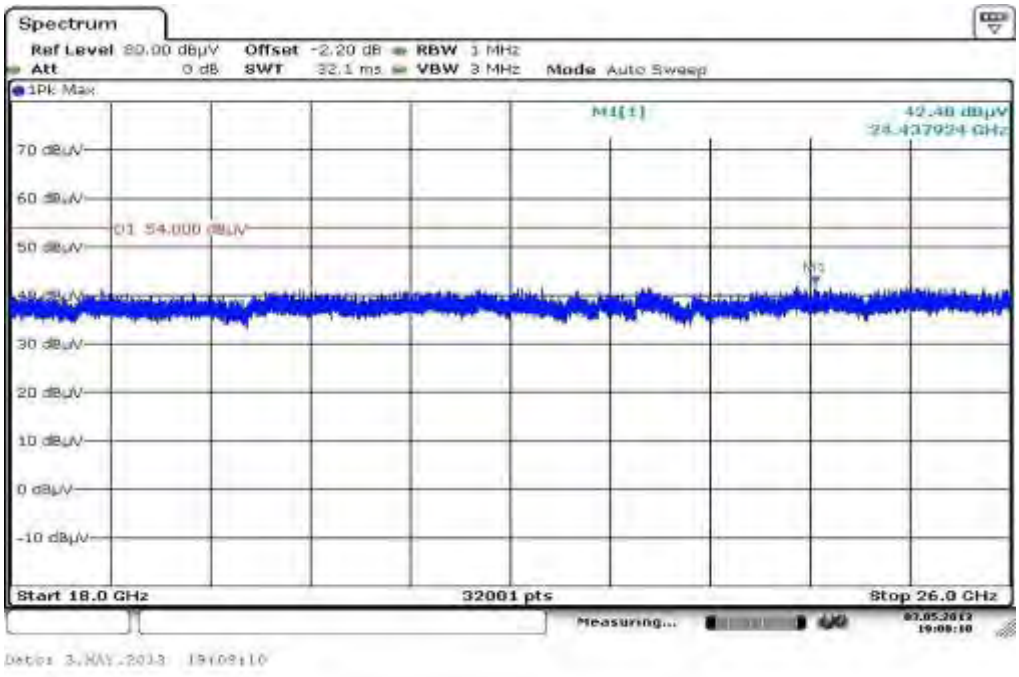


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

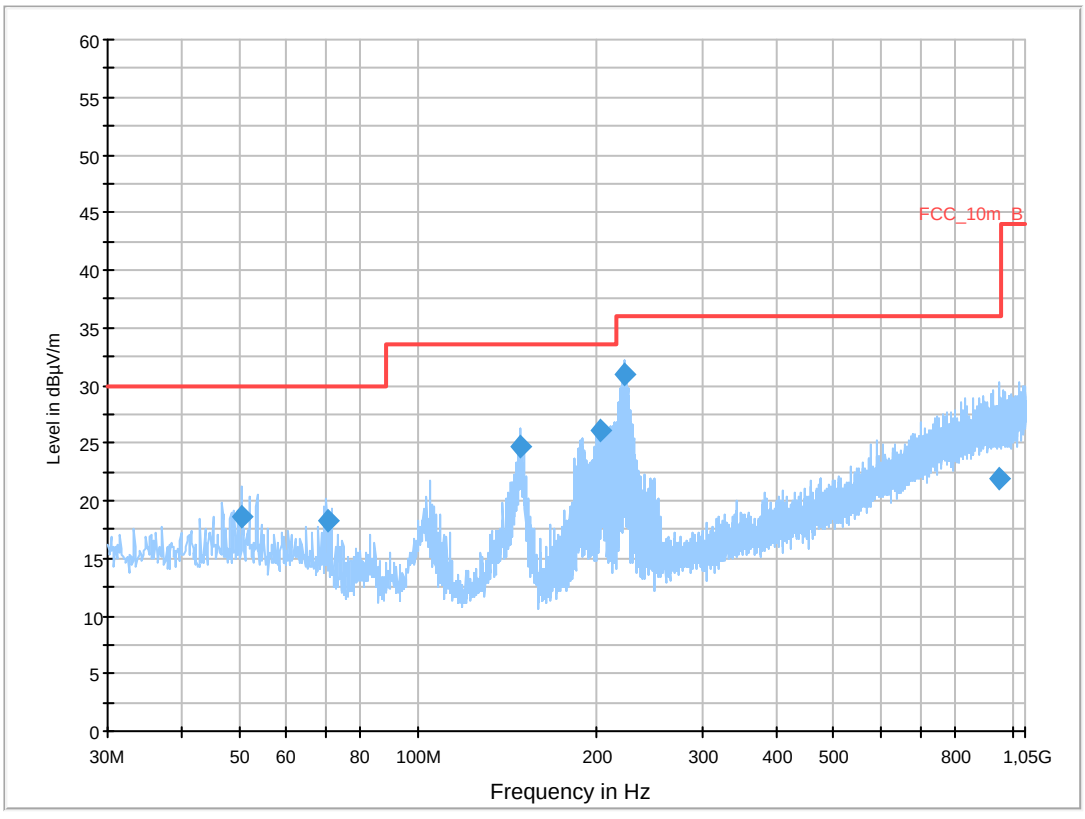
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx b-mode ch6
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

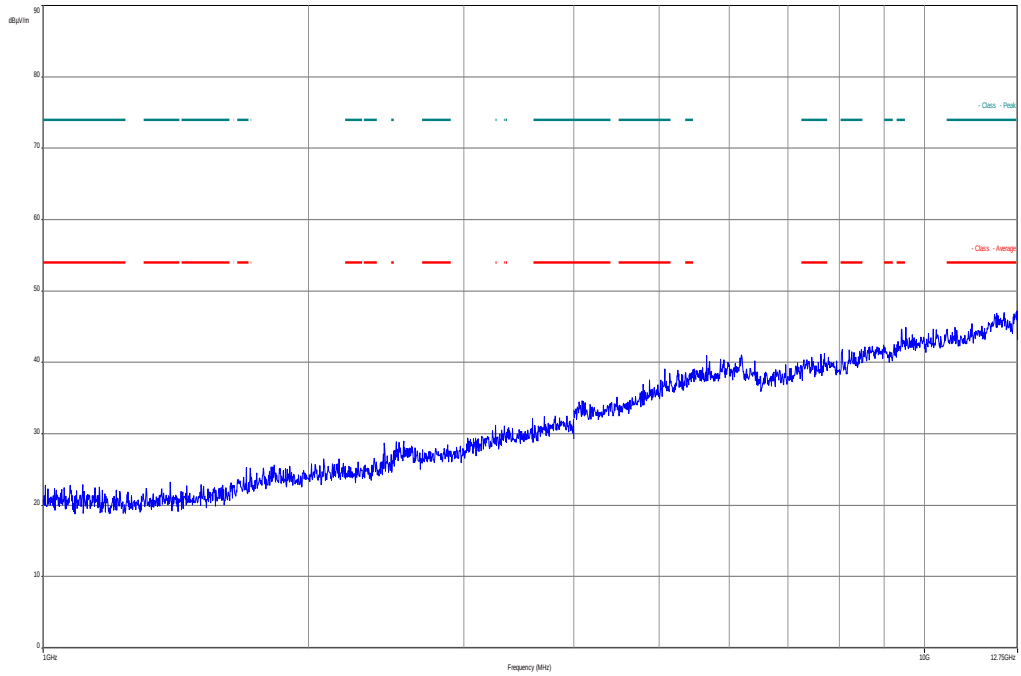
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

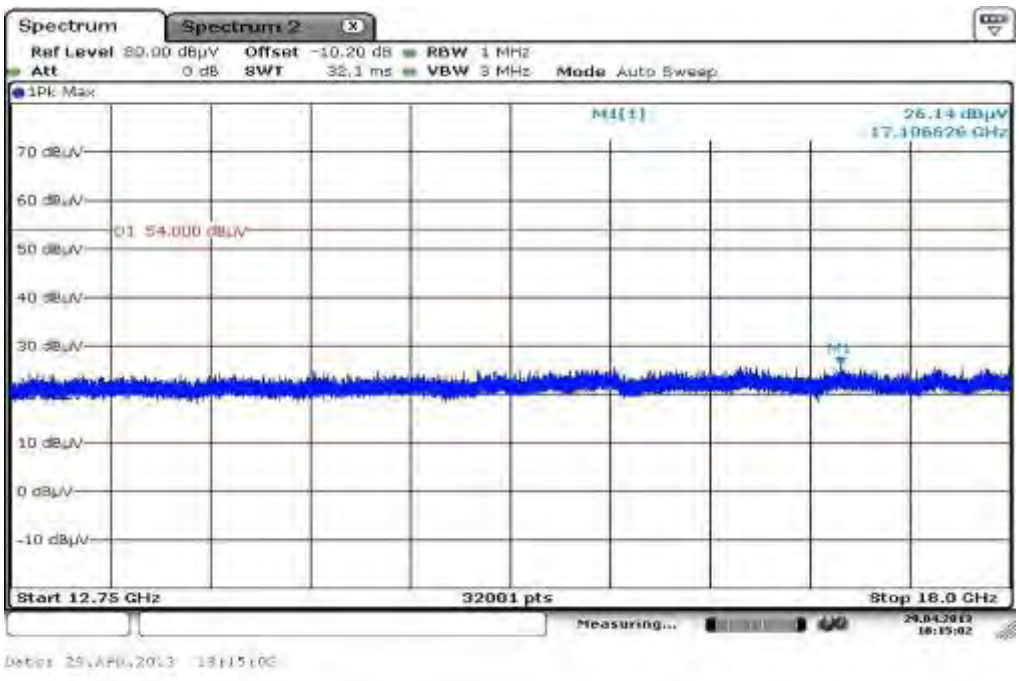
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
50.532150	18.7	1000.0	120.000	98.0	V	10.0	13.3	11.3	30.0	
70.193850	18.3	1000.0	120.000	170.0	V	-10.0	9.3	11.7	30.0	
148.639500	24.7	1000.0	120.000	98.0	V	190.0	8.9	8.8	33.5	
202.250700	26.1	1000.0	120.000	170.0	V	-2.0	11.8	7.4	33.5	
221.859300	30.9	1000.0	120.000	170.0	V	280.0	12.4	5.1	36.0	
948.529050	21.9	1000.0	120.000	170.0	V	178.0	25.3	14.1	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

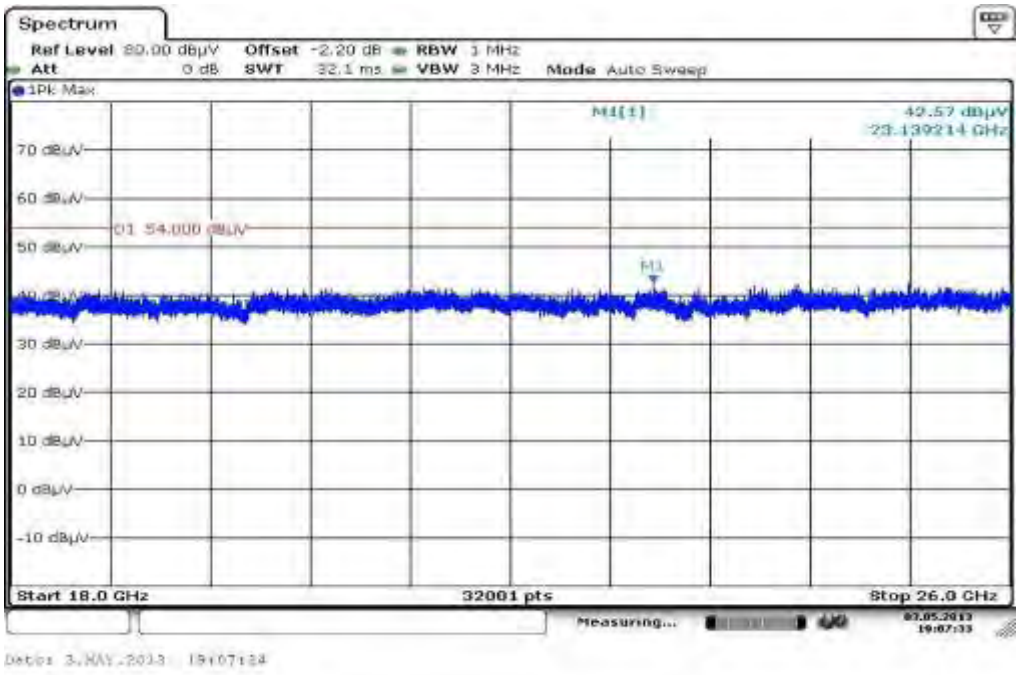


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

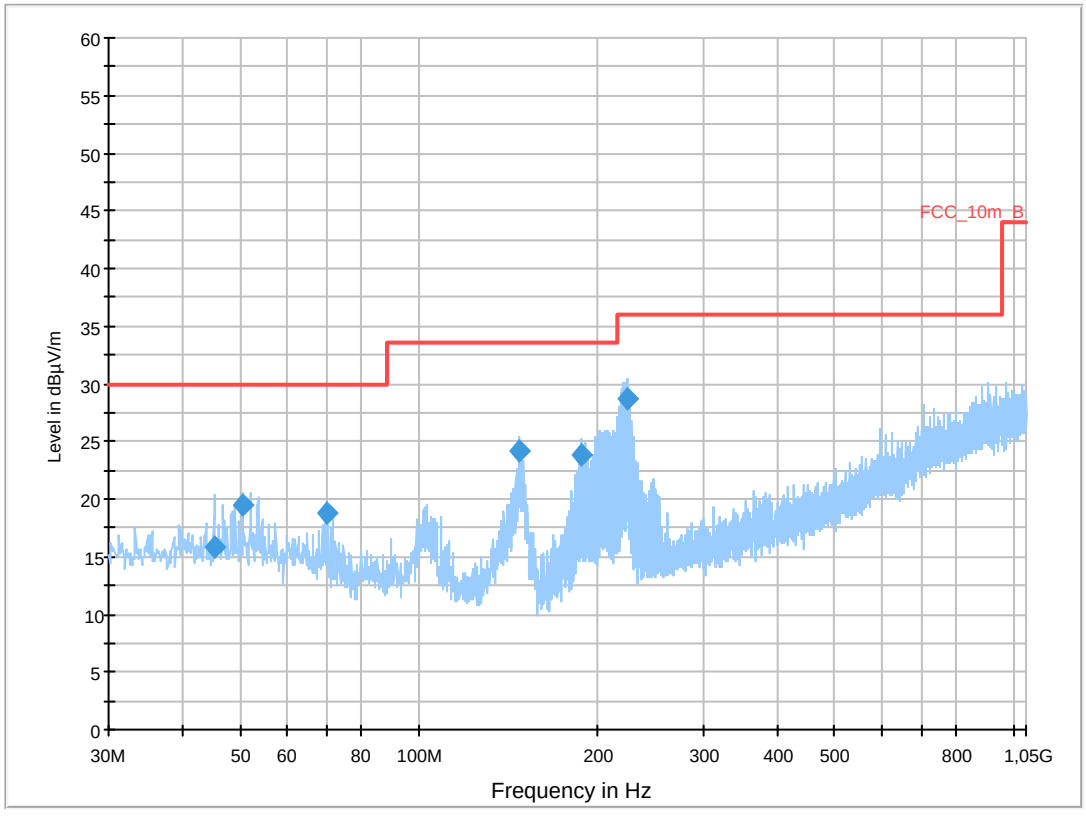
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx b-mode ch11
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

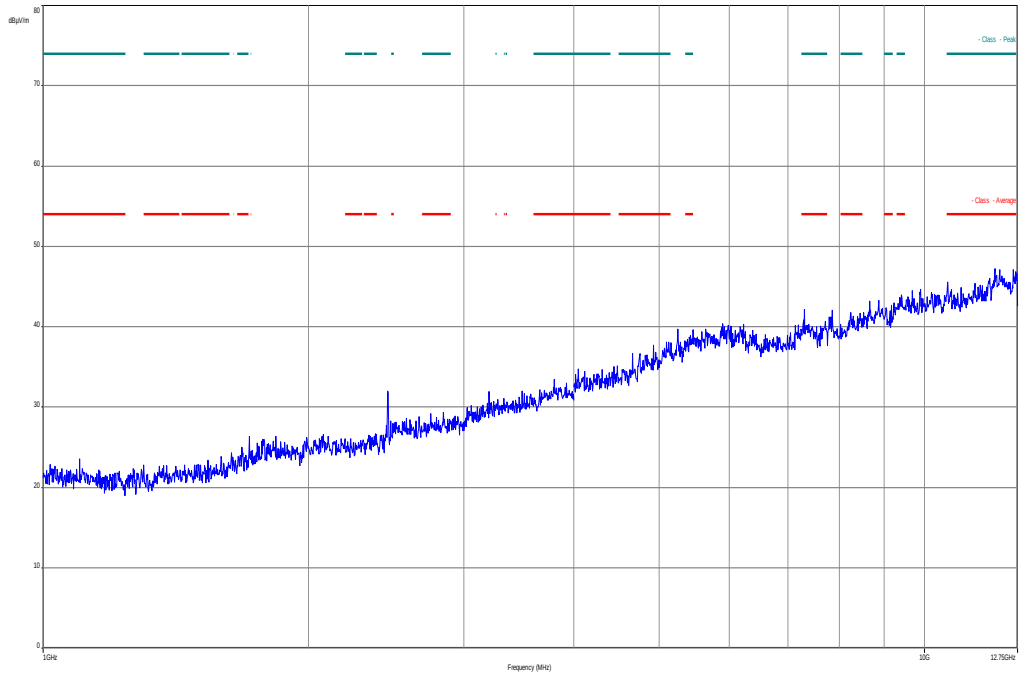
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

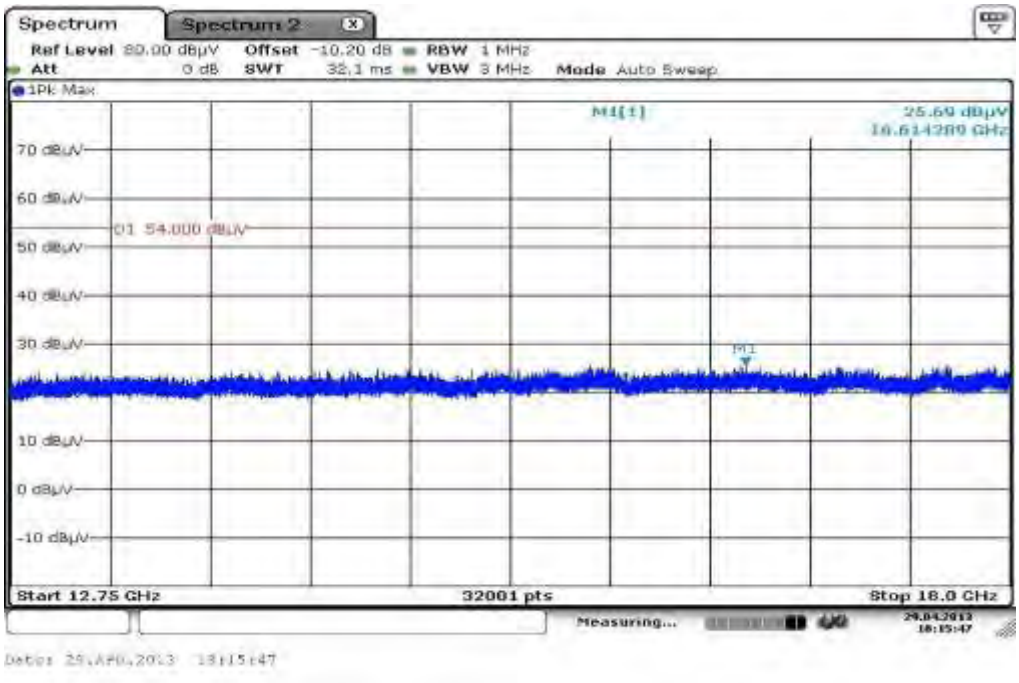
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
45.269850	15.9	1000.0	120.000	161.0	V	0.0	13.3	14.1	30.0	
50.556750	19.5	1000.0	120.000	98.0	V	-10.0	13.3	10.5	30.0	
70.154850	18.7	1000.0	120.000	170.0	V	-2.0	9.3	11.3	30.0	
147.165750	24.2	1000.0	120.000	98.0	V	10.0	8.9	9.3	33.5	
187.896600	23.8	1000.0	120.000	170.0	V	-10.0	10.9	9.7	33.5	
223.400400	28.7	1000.0	120.000	170.0	V	190.0	12.5	7.3	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

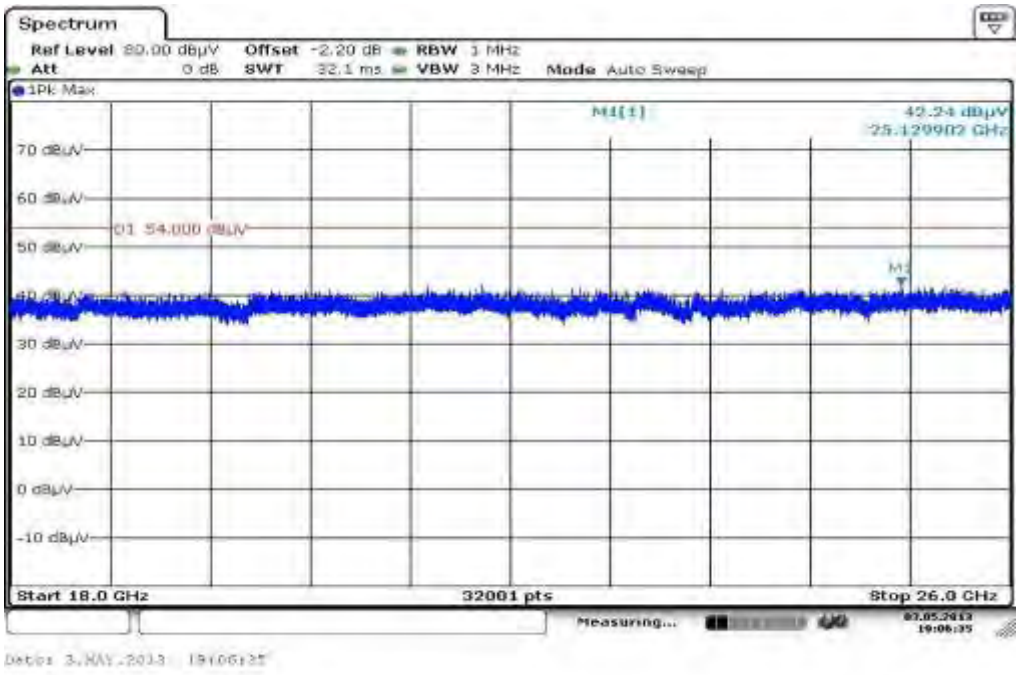


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / g – mode (ANT 453564271931)

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

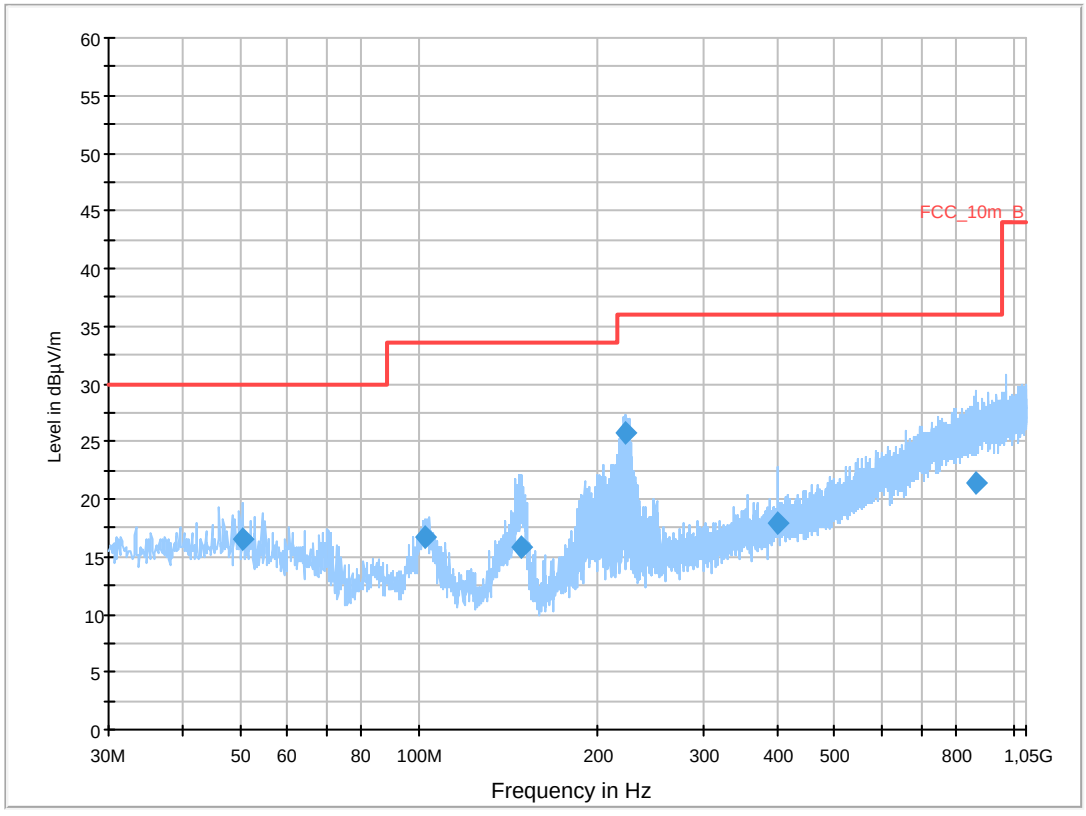
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx g-mode ch1
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

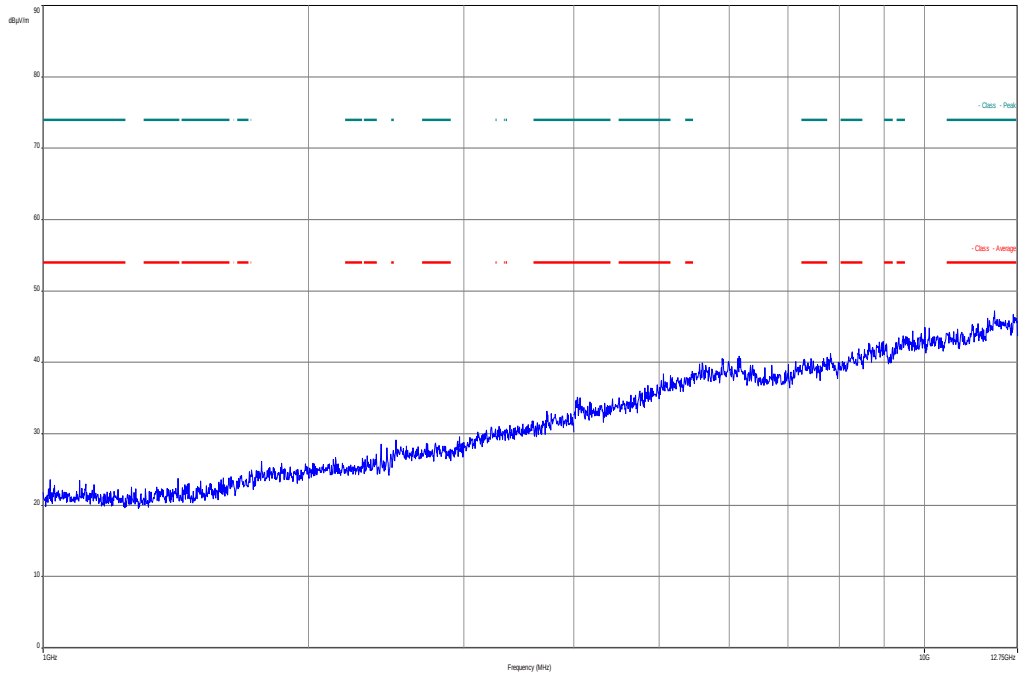
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

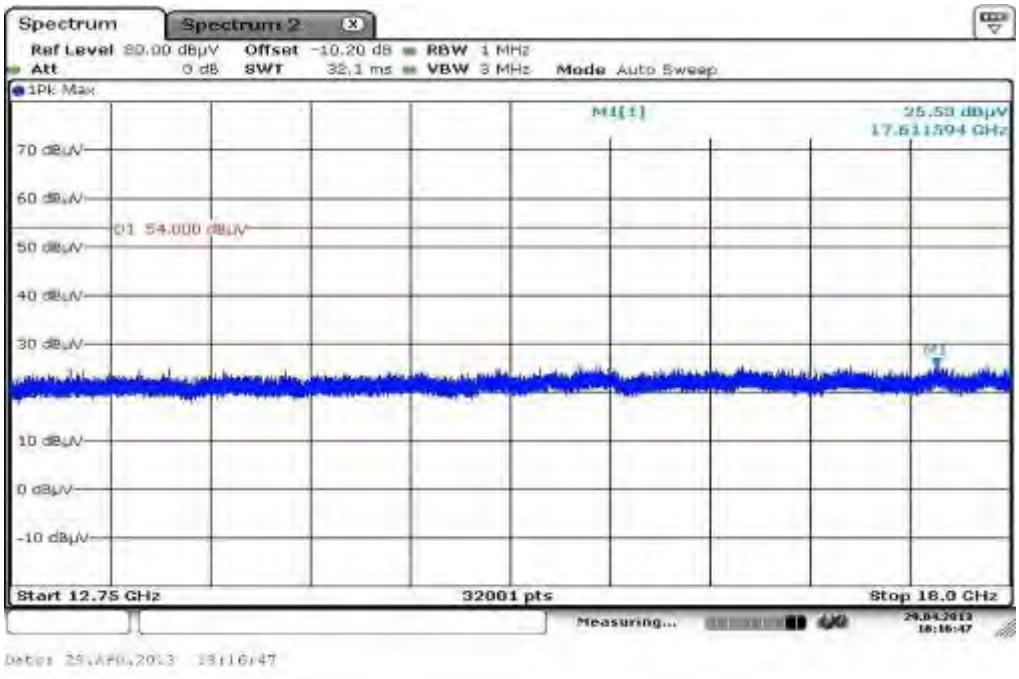
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
50.637750	16.5	1000.0	120.000	155.0	V	261.0	13.3	13.5	30.0	
102.029400	16.6	1000.0	120.000	111.0	V	280.0	11.7	16.9	33.5	
148.829100	15.8	1000.0	120.000	170.0	V	88.0	8.9	17.7	33.5	
222.208050	25.7	1000.0	120.000	98.0	V	268.0	12.5	10.3	36.0	
399.977700	18.0	1000.0	120.000	163.0	H	10.0	16.9	18.0	36.0	
864.988500	21.4	1000.0	120.000	162.0	H	183.0	24.7	14.6	36.0	

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

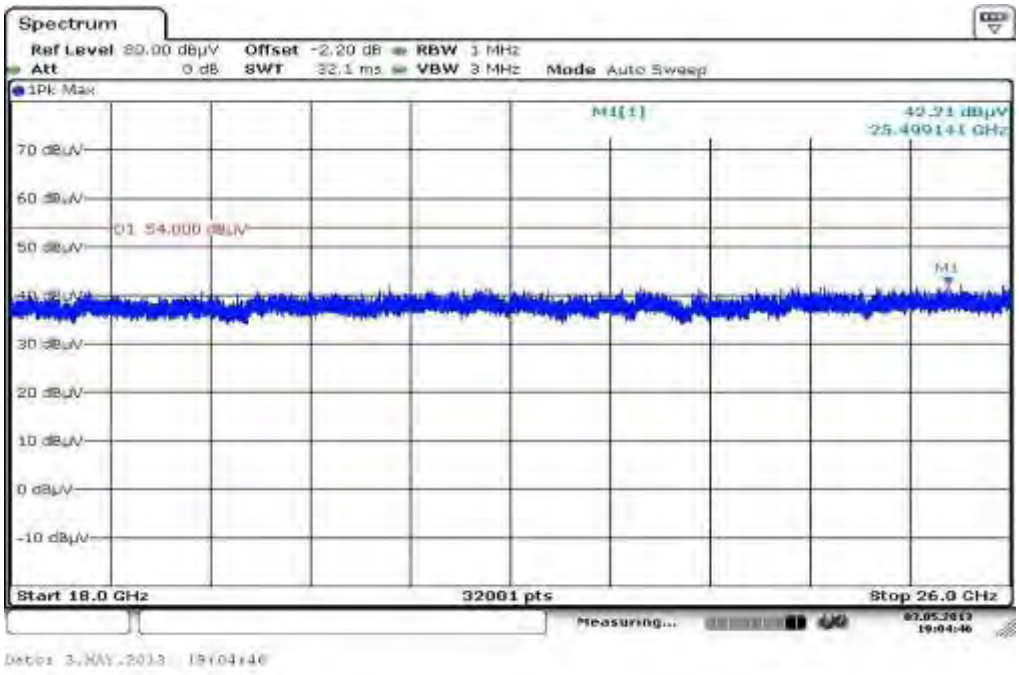


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

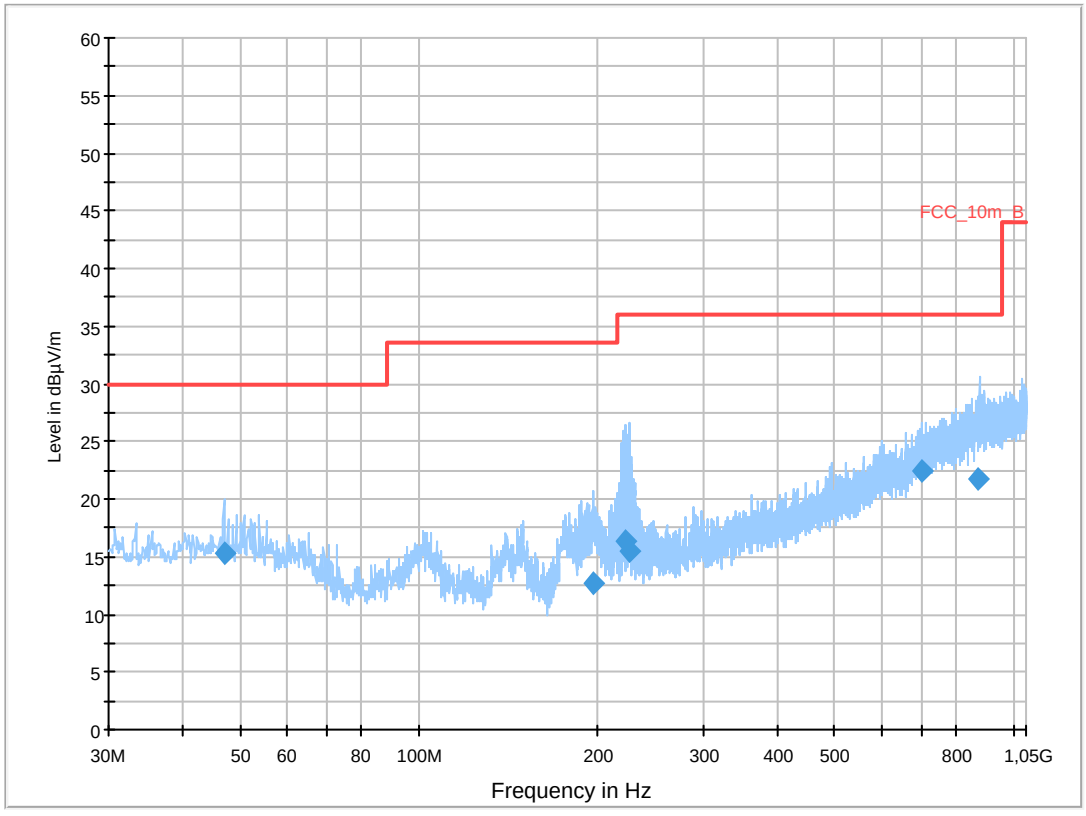
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx g-mode ch6
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

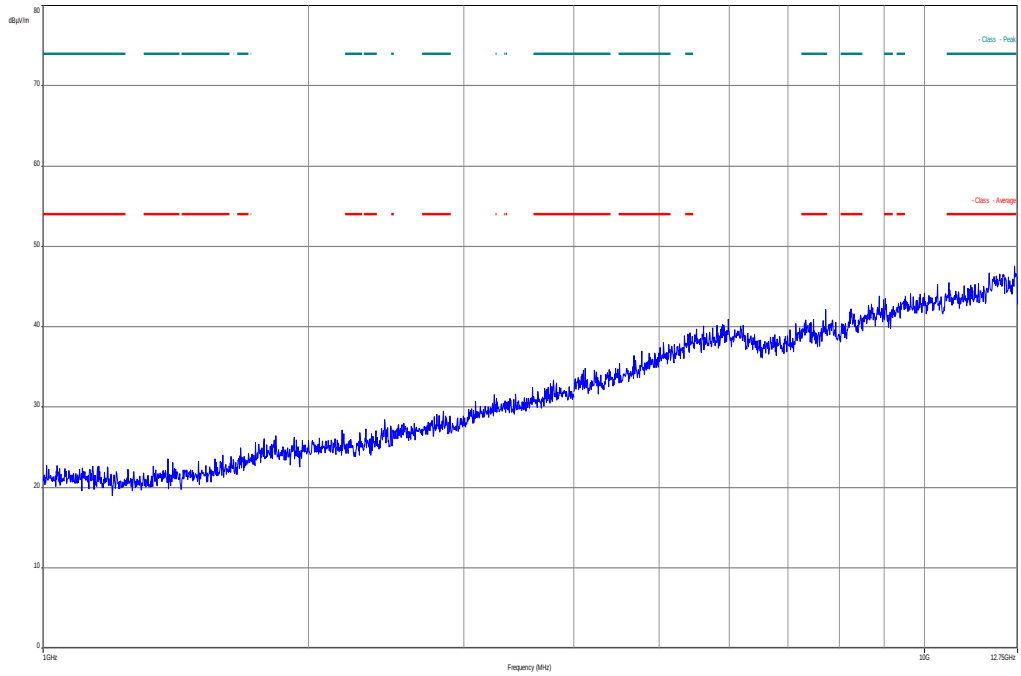
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

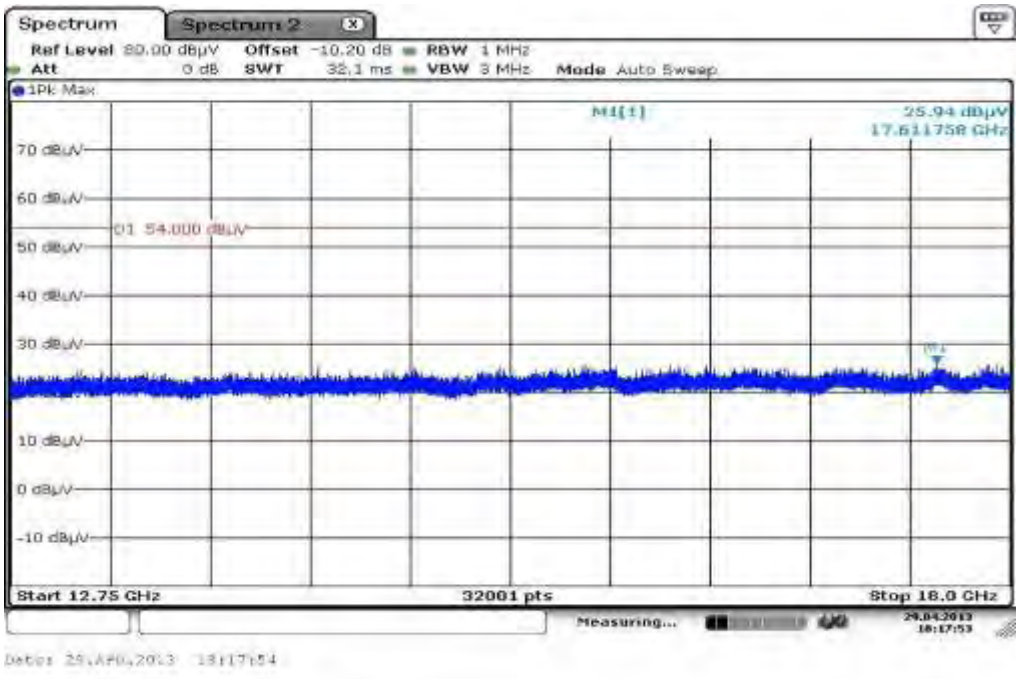
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)	Comment
47.020050	15.3	1000.0	120.000	98.0	V	10.0	13.3	14.7	30.0	
195.928350	12.7	1000.0	120.000	98.0	V	100.0	11.5	20.8	33.5	
222.439500	16.4	1000.0	120.000	152.0	V	2.0	12.5	19.6	36.0	
225.446850	15.5	1000.0	120.000	113.0	V	3.0	12.6	20.5	36.0	
700.029750	22.5	1000.0	120.000	170.0	H	178.0	22.5	13.5	36.0	
874.425300	21.8	1000.0	120.000	170.0	V	170.0	24.9	14.2	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

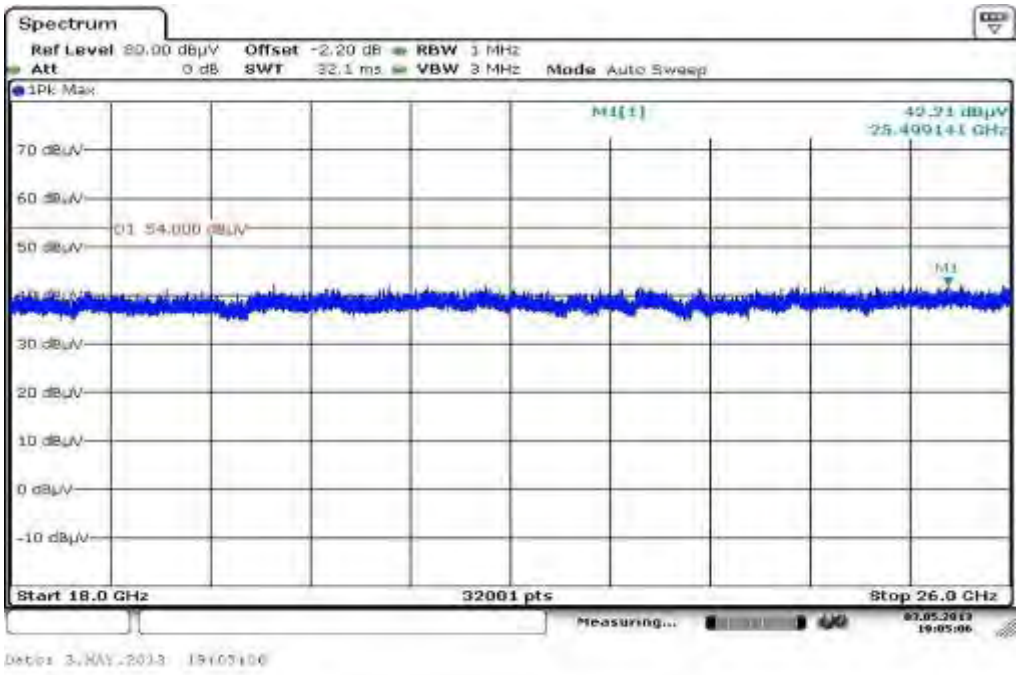


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

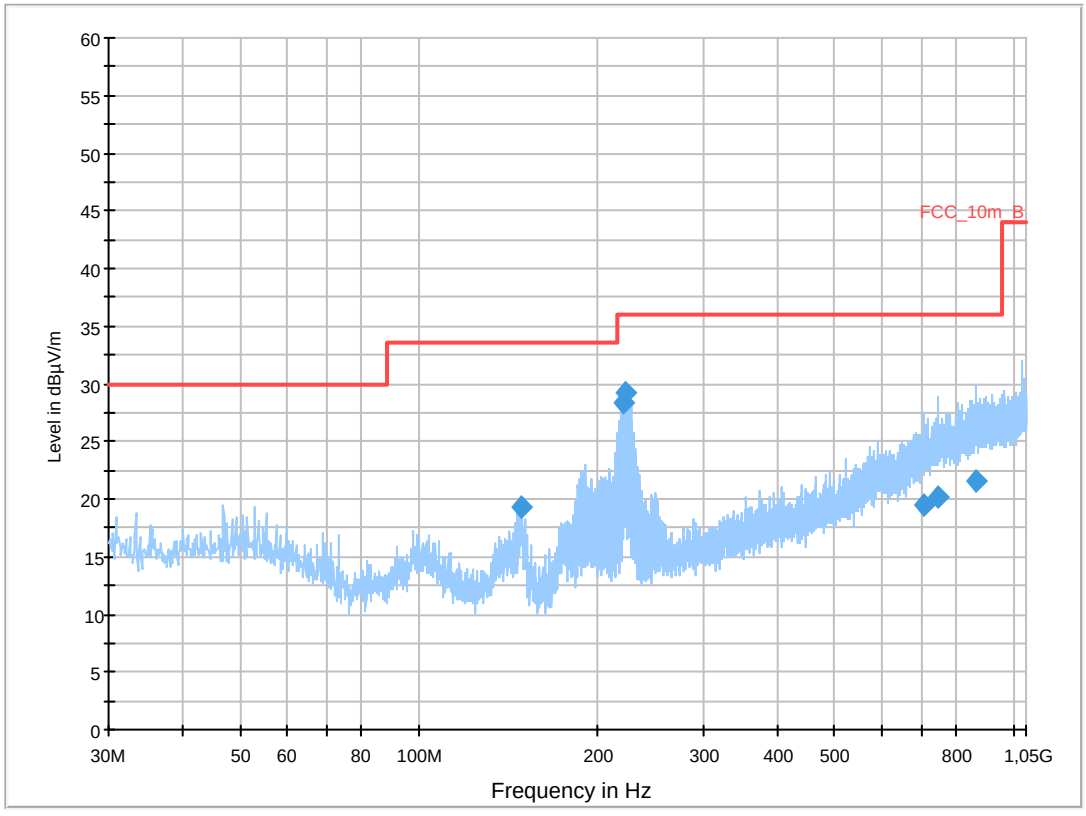
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx g-mode ch11
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

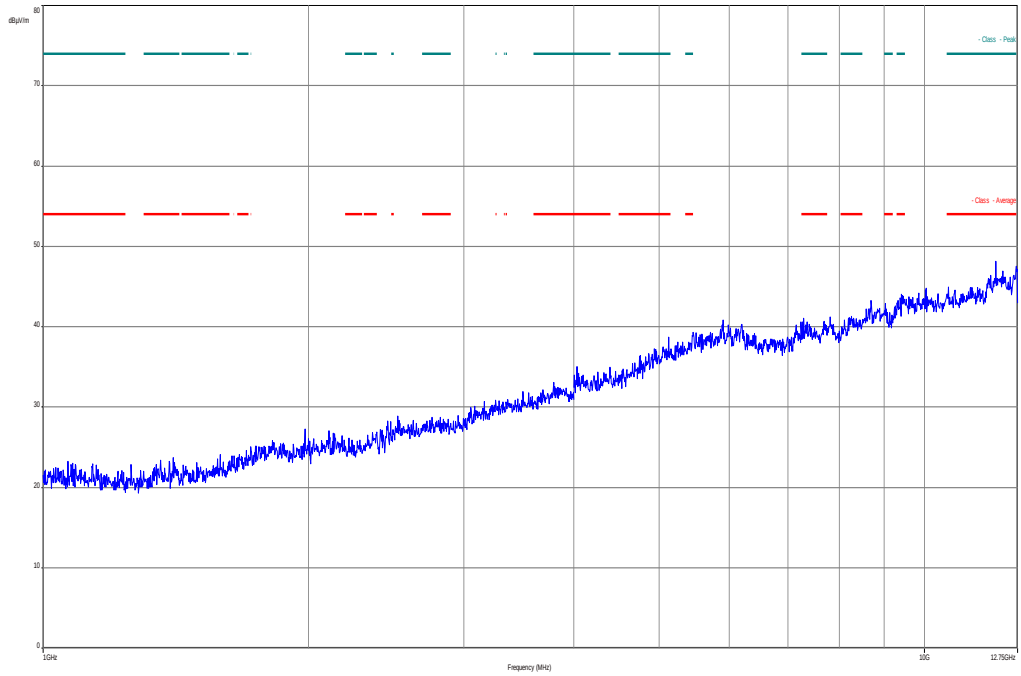
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

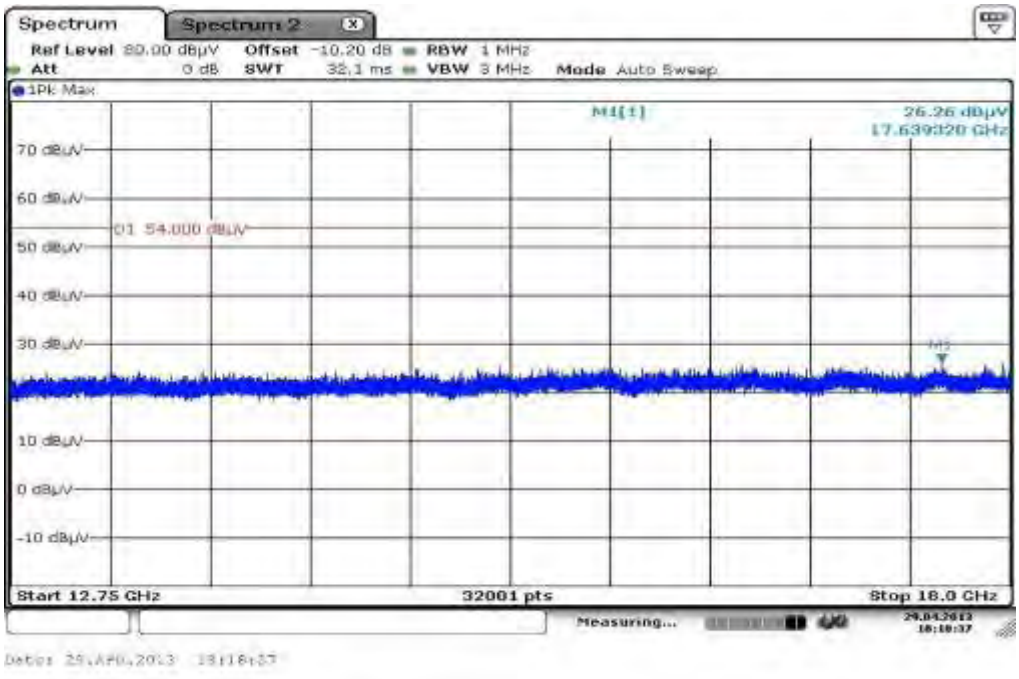
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)	Comment
148.227750	19.3	1000.0	120.000	105.0	V	-9.0	8.9	14.2	33.5	
220.021050	28.4	1000.0	120.000	133.0	V	0.0	12.4	7.6	36.0	
222.323850	29.3	1000.0	120.000	104.0	V	10.0	12.5	6.7	36.0	
706.208100	19.4	1000.0	120.000	104.0	V	190.0	22.6	16.6	36.0	
747.230700	20.2	1000.0	120.000	170.0	H	81.0	23.6	15.8	36.0	
862.225500	21.5	1000.0	120.000	170.0	V	-10.0	24.7	14.5	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

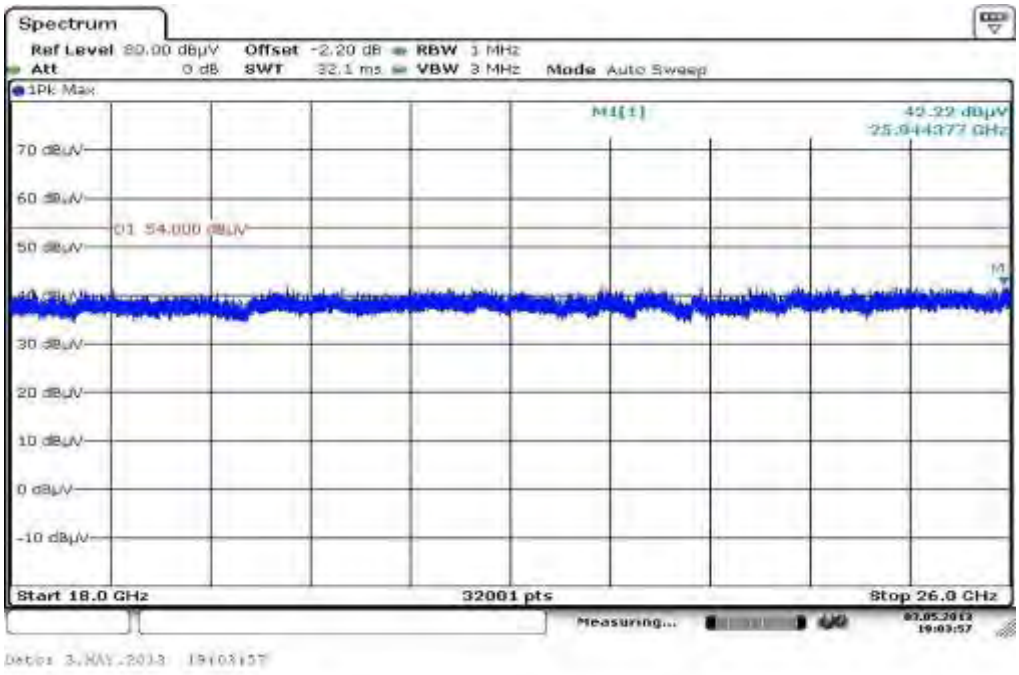


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / n – mode HT20 (ANT 453564271931)

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

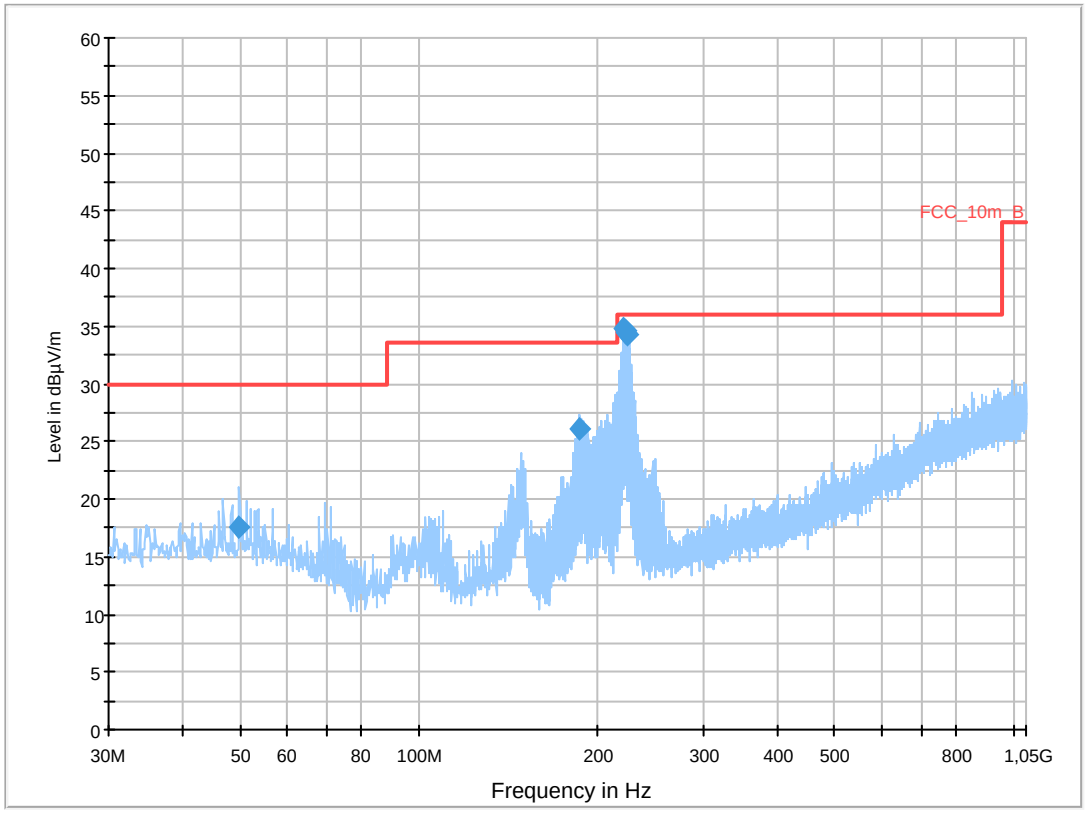
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT20 ch1
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

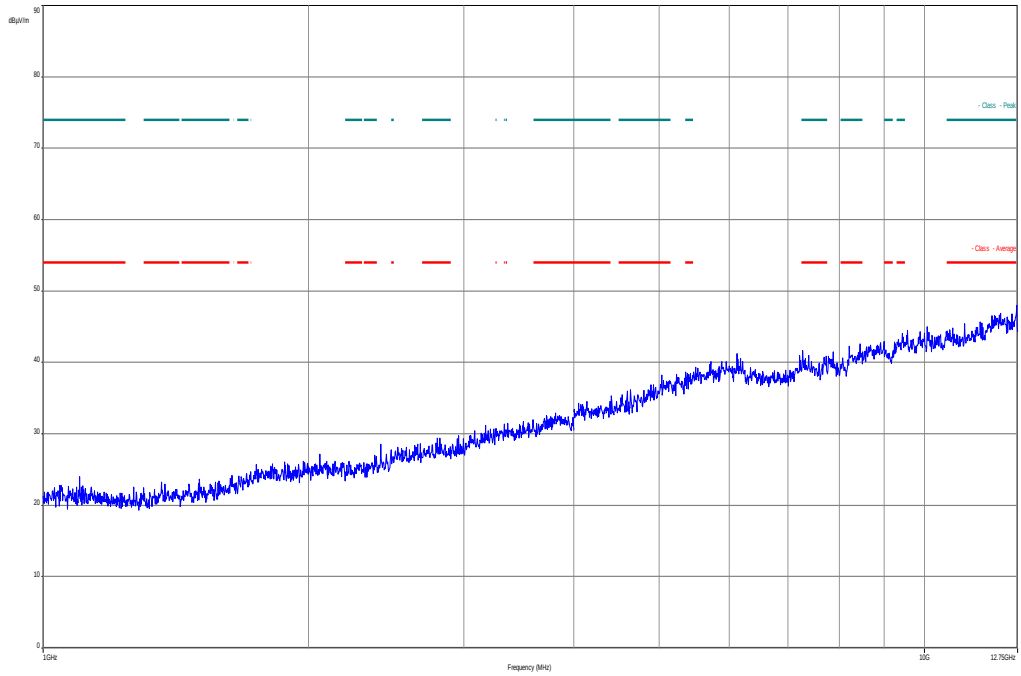
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

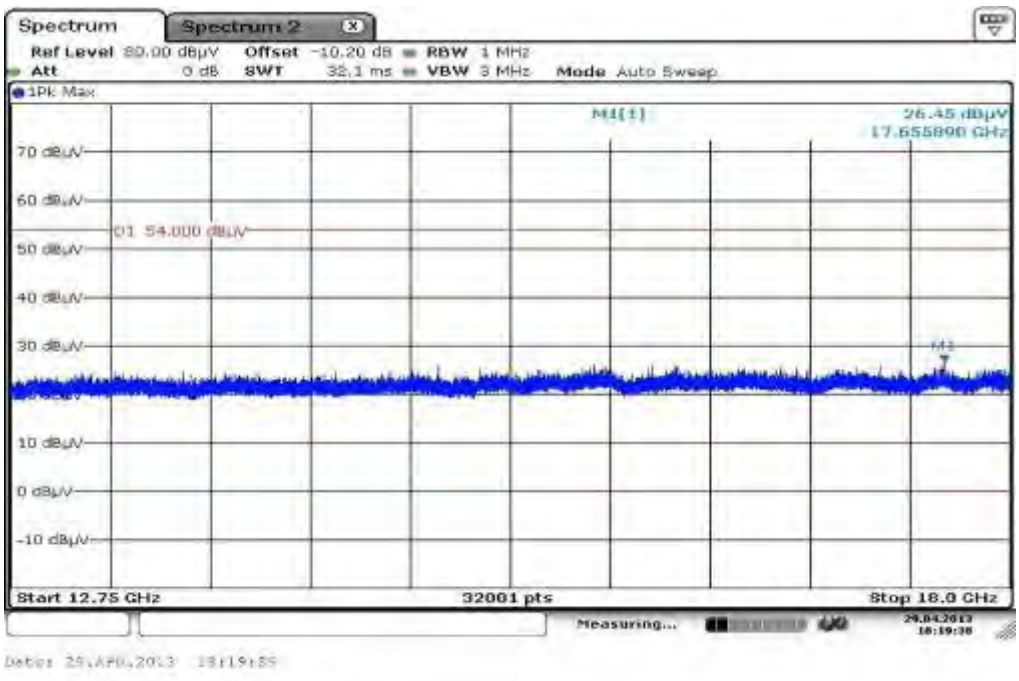
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)	Comment
49.813350	17.5	1000.0	120.000	170.0	V	268.0	13.4	12.5	30.0	
185.671050	26.1	1000.0	120.000	98.0	V	81.0	10.8	7.4	33.5	
221.123100	34.7	1000.0	120.000	105.0	V	0.0	12.4	1.3	36.0	
221.884800	34.6	1000.0	120.000	170.0	V	80.0	12.4	1.4	36.0	
222.614250	34.4	1000.0	120.000	112.0	V	81.0	12.5	1.6	36.0	
223.420800	34.2	1000.0	120.000	162.0	V	-5.0	12.5	1.8	36.0	

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

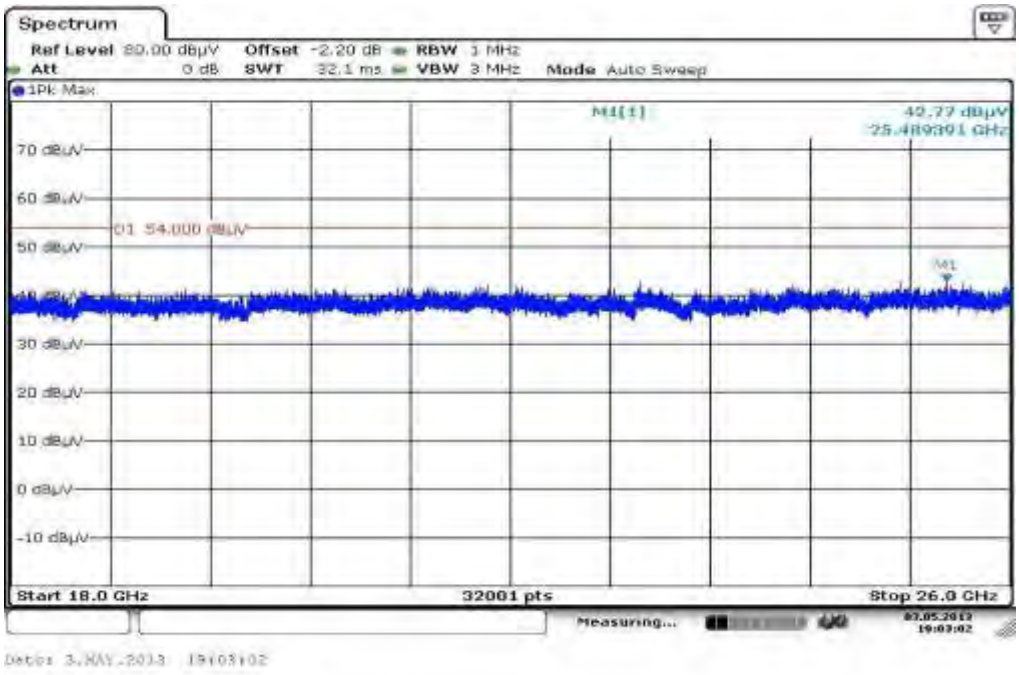


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

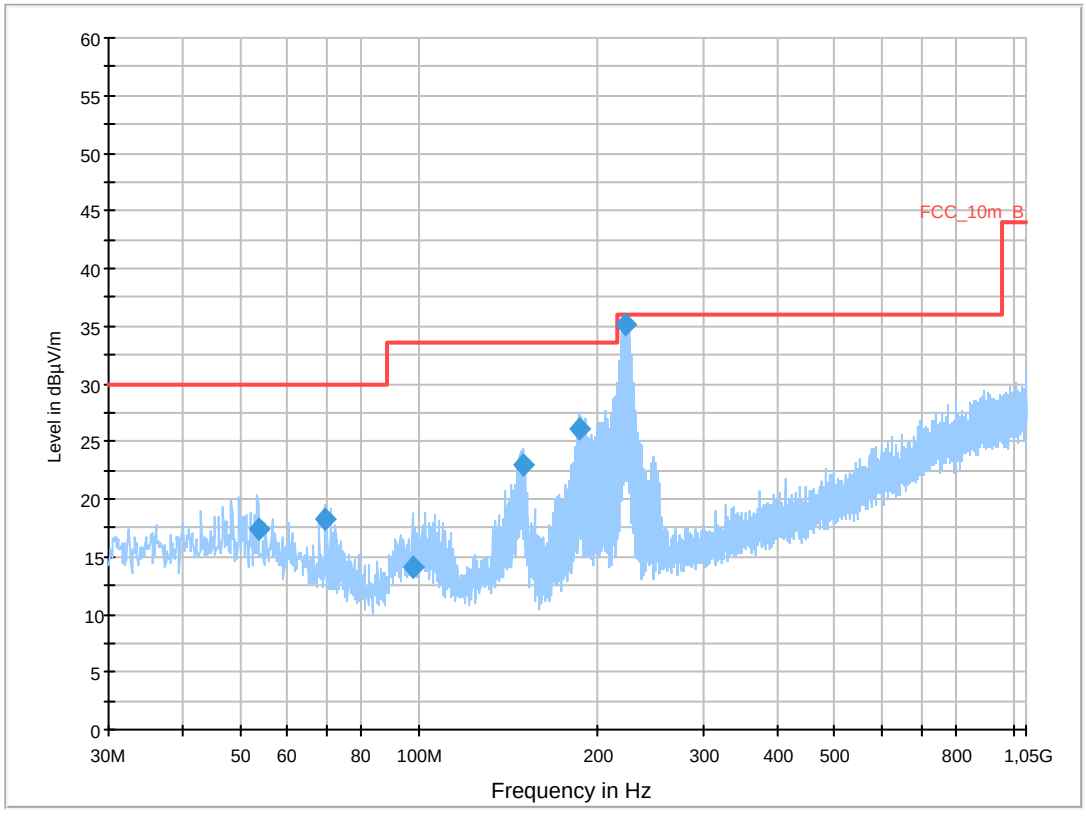
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT20 ch6
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

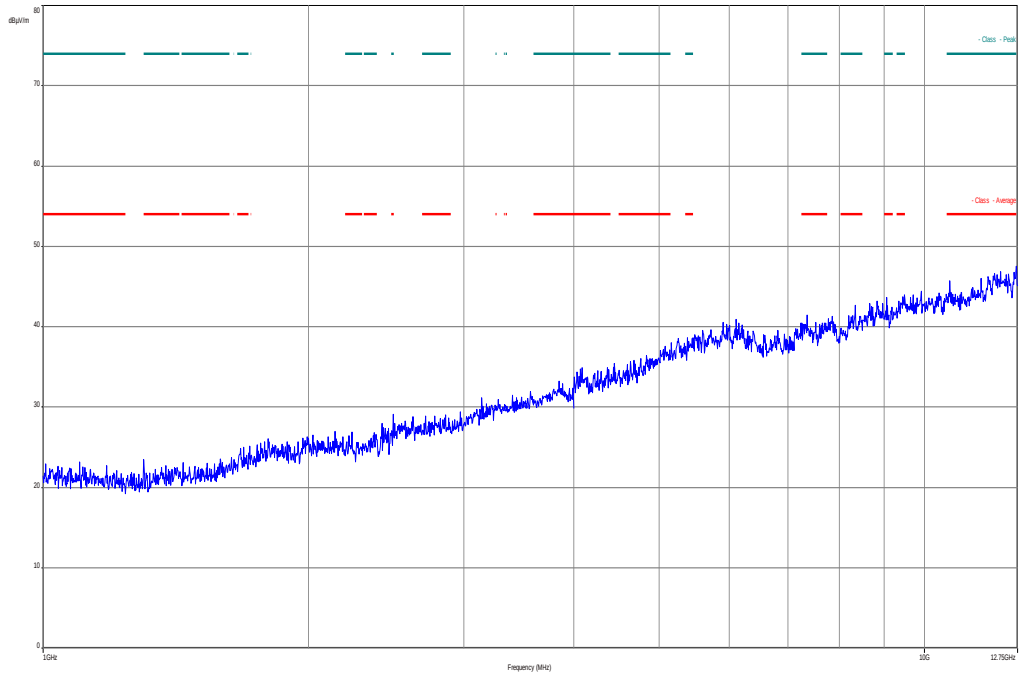
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

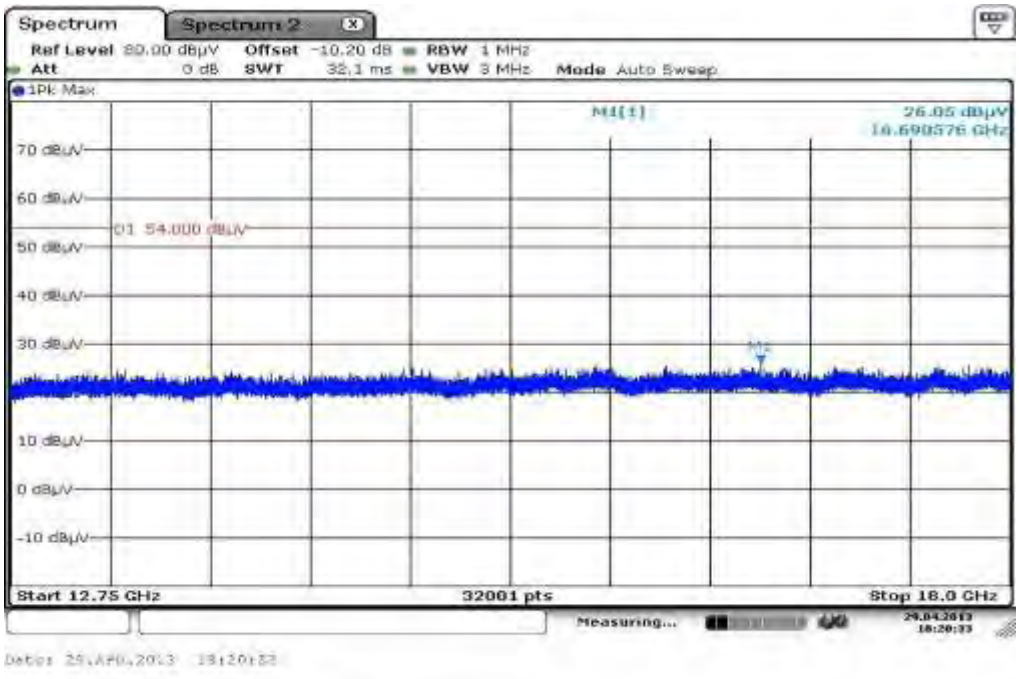
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)	Comment
53.590350	17.3	1000.0	120.000	113.0	V	190.0	13.0	12.7	30.0	
69.437550	18.3	1000.0	120.000	170.0	V	88.0	9.4	11.7	30.0	
97.346700	14.0	1000.0	120.000	98.0	V	190.0	11.6	19.5	33.5	
149.433000	23.0	1000.0	120.000	105.0	V	10.0	8.9	10.6	33.5	
186.376650	26.1	1000.0	120.000	98.0	V	100.0	10.8	7.4	33.5	
222.625500	35.7	1000.0	120.000	98.0	V	-10.0	12.5	0.3	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

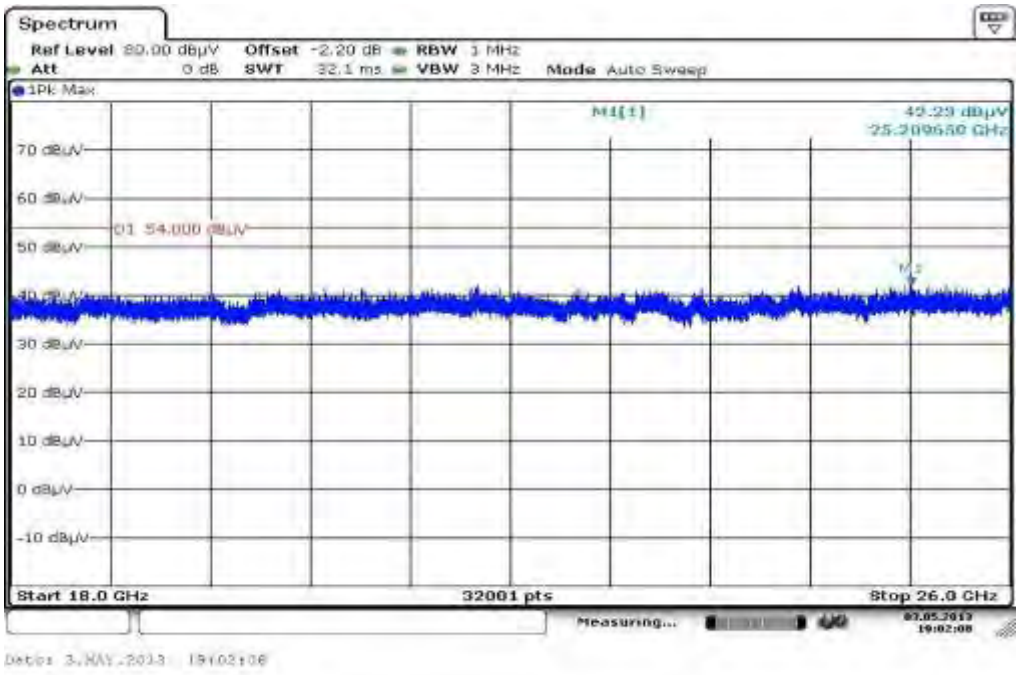


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

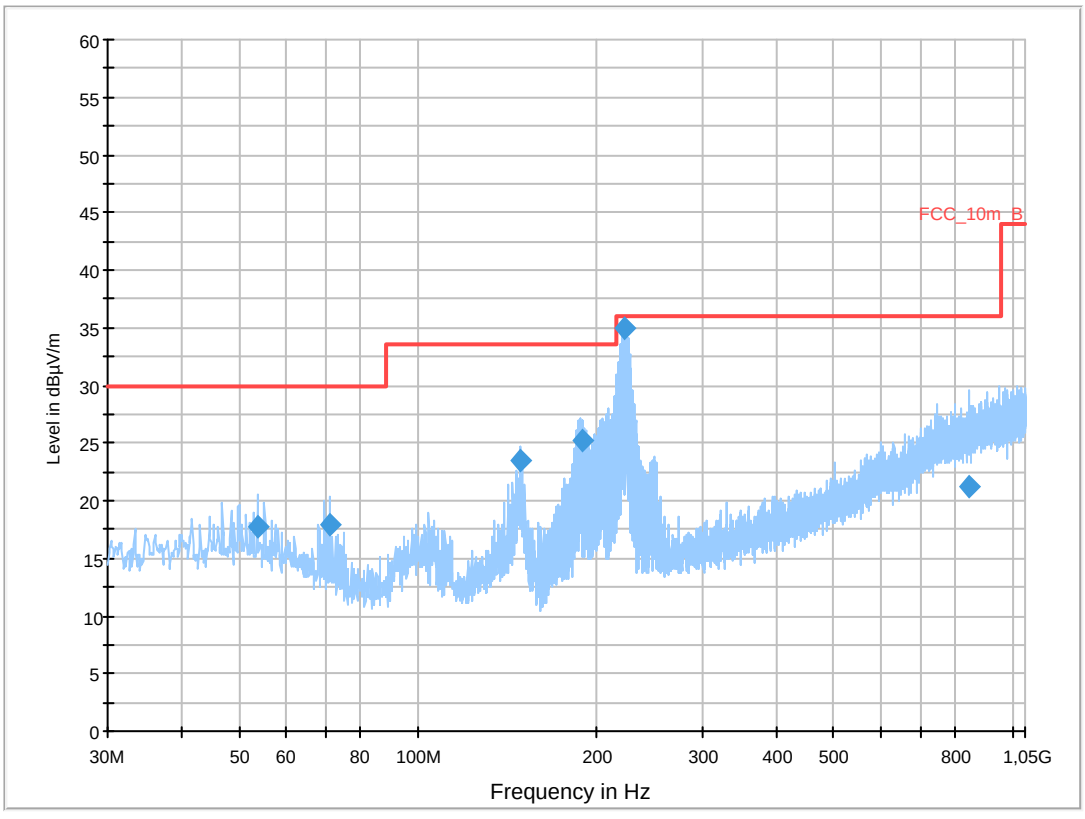
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT20 ch11
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

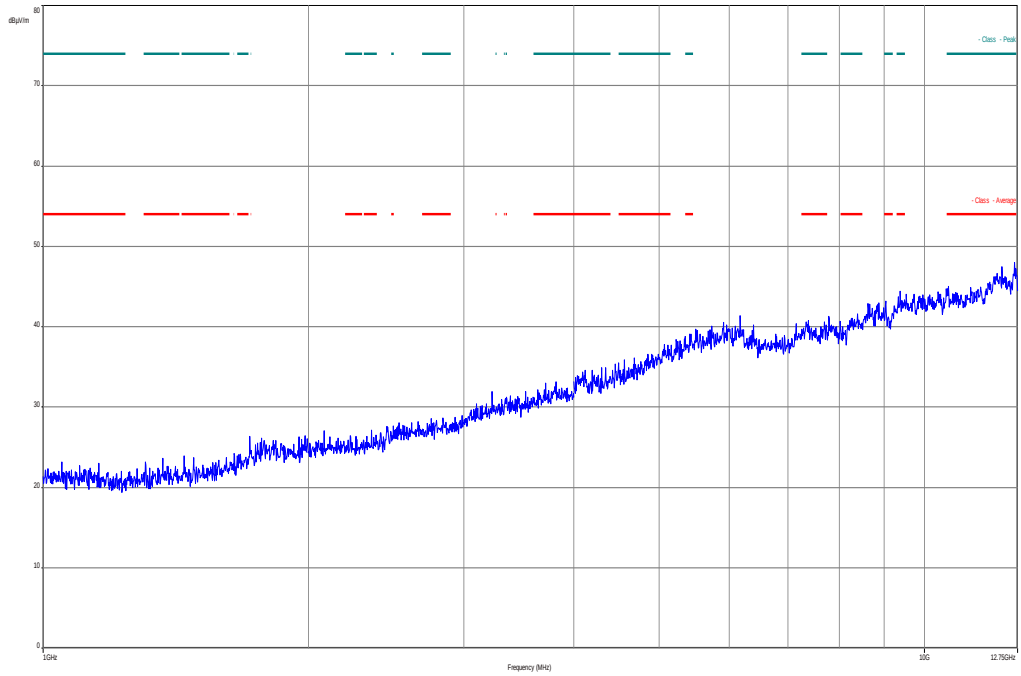
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

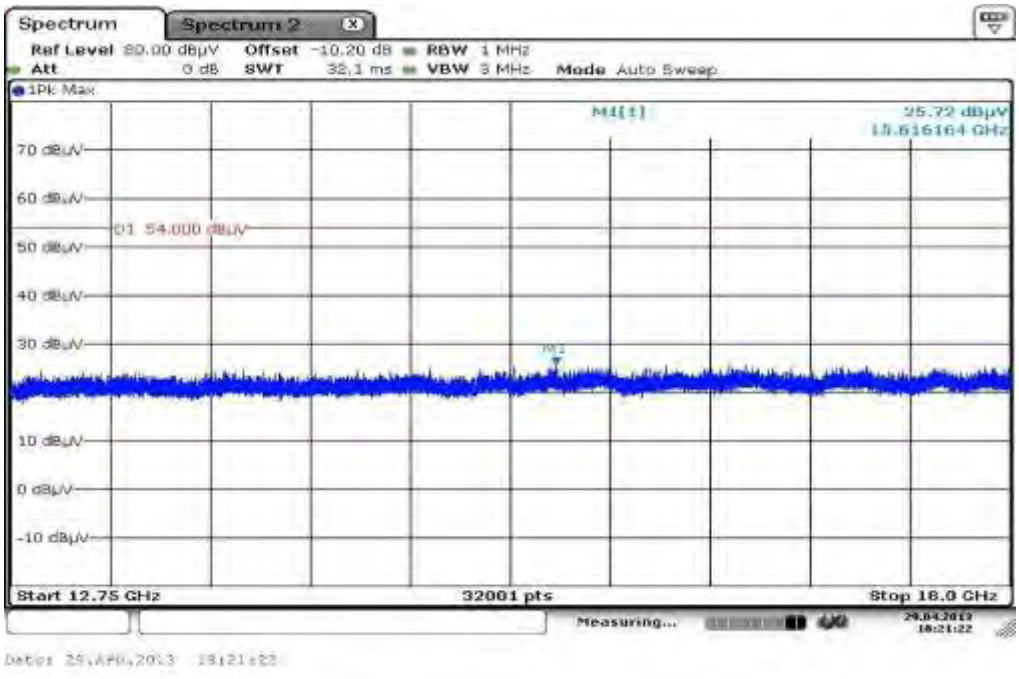
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)	Comment
53.593500	17.8	1000.0	120.000	112.0	V	-5.0	13.0	12.2	30.0	
70.943550	18.0	1000.0	120.000	170.0	V	100.0	9.3	12.0	30.0	
147.935550	23.5	1000.0	120.000	98.0	V	-5.0	8.9	10.0	33.5	
188.697900	25.3	1000.0	120.000	98.0	V	100.0	11.0	8.2	33.5	
222.661500	35.0	1000.0	120.000	170.0	V	0.0	12.5	1.0	36.0	
847.972650	21.3	1000.0	120.000	170.0	V	93.0	24.5	14.7	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

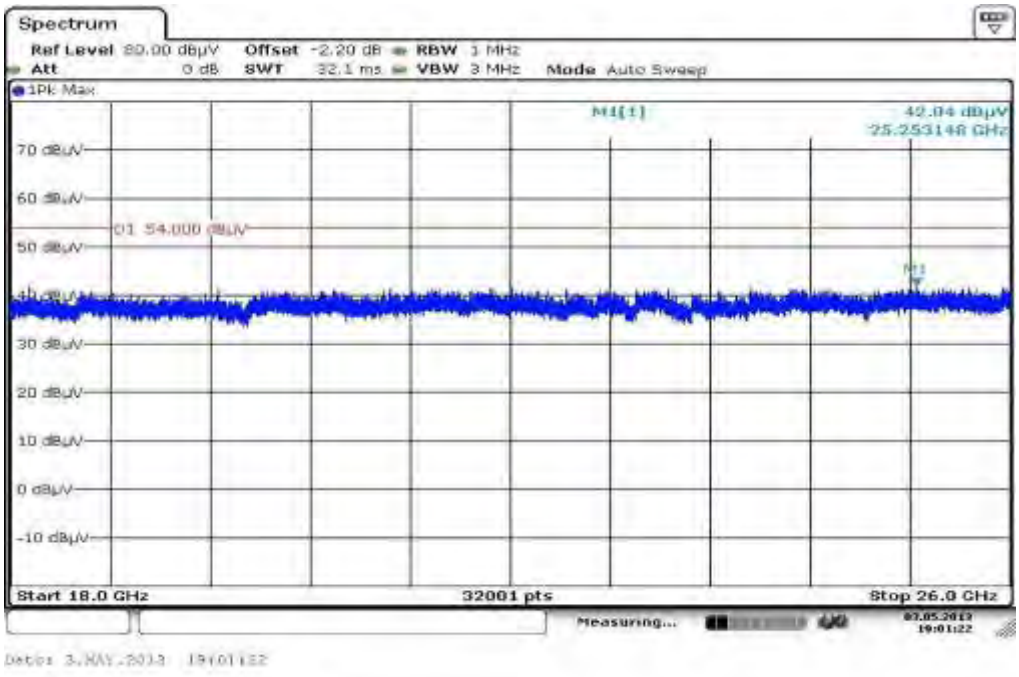


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plots: OFDM / n – mode HT40 (ANT 453564271931)

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

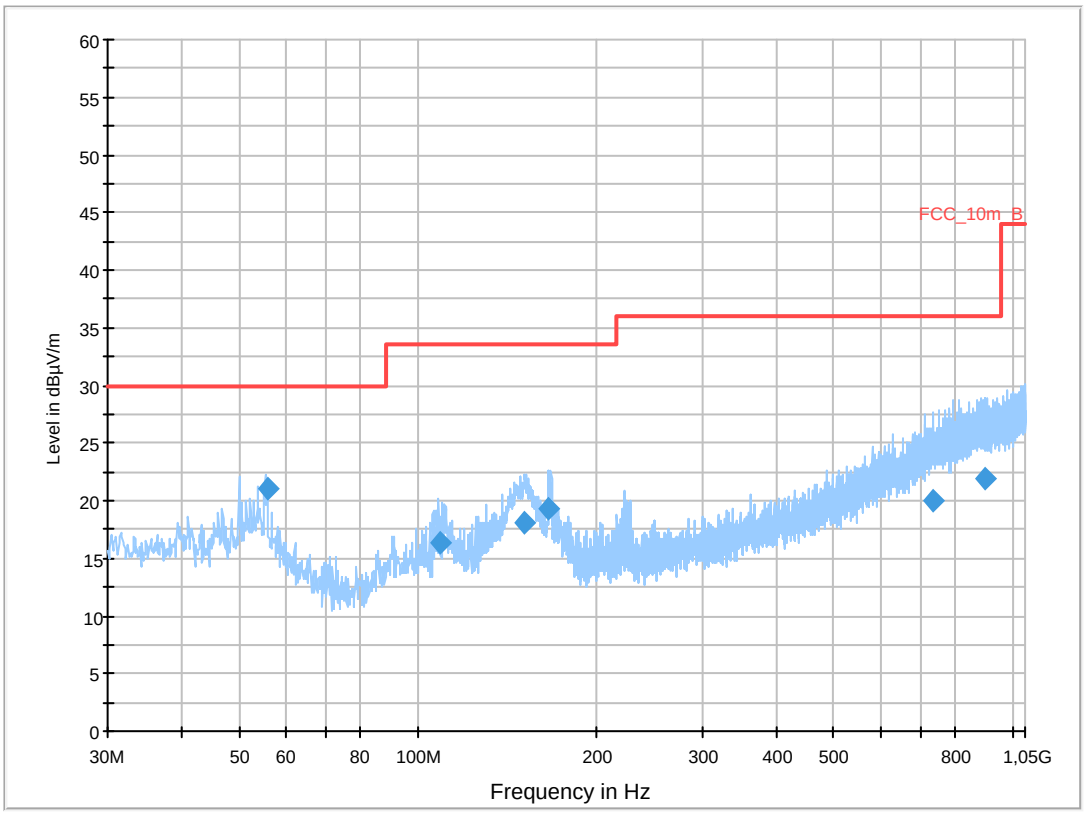
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT40 lowest channel
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

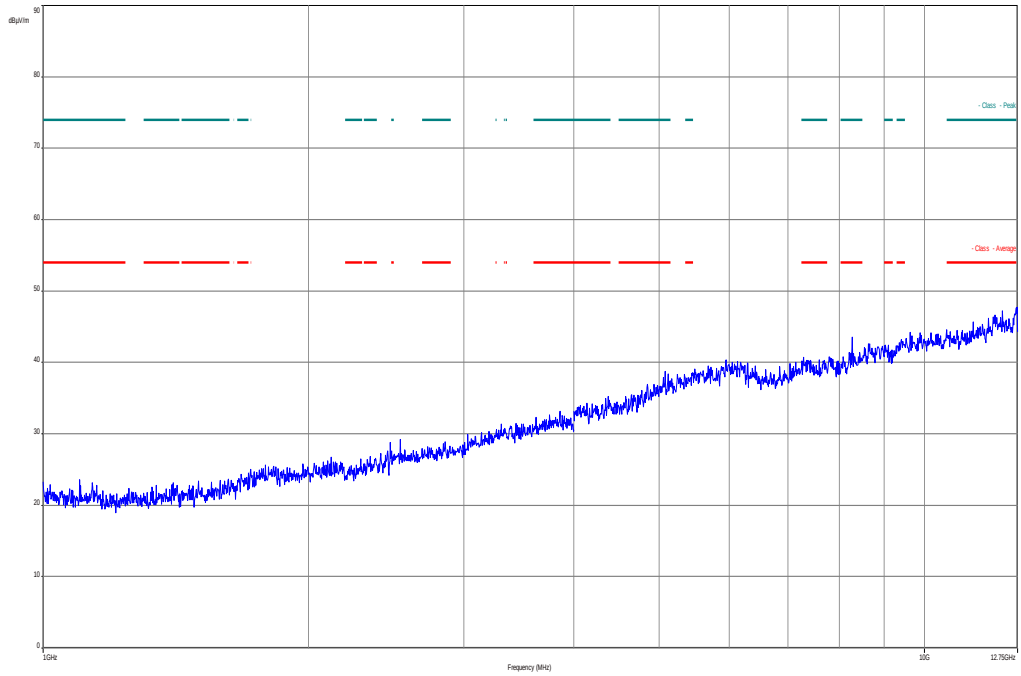
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

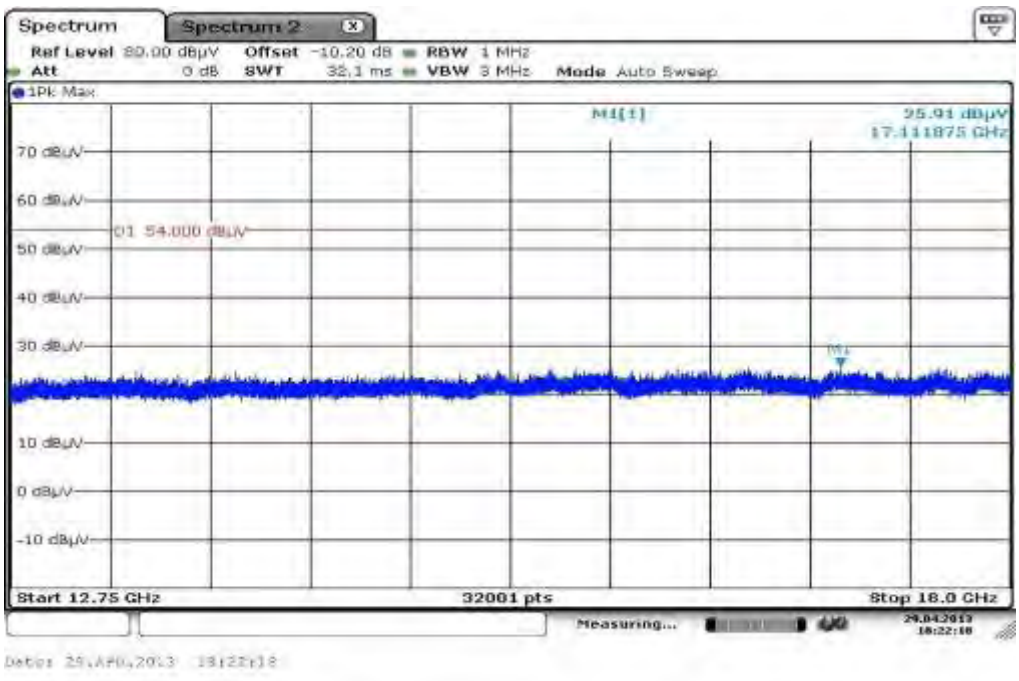
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
55.737450	21.1	1000.0	120.000	170.0	V	90.0	12.7	8.9	30.0	
108.826800	16.3	1000.0	120.000	170.0	V	2.0	11.1	17.2	33.5	
150.605400	18.1	1000.0	120.000	98.0	V	100.0	8.9	15.4	33.5	
165.603750	19.3	1000.0	120.000	98.0	V	-5.0	9.5	14.2	33.5	
732.485400	20.0	1000.0	120.000	170.0	H	190.0	23.3	16.0	36.0	
901.910250	21.9	1000.0	120.000	170.0	V	87.0	25.2	14.1	36.0	

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

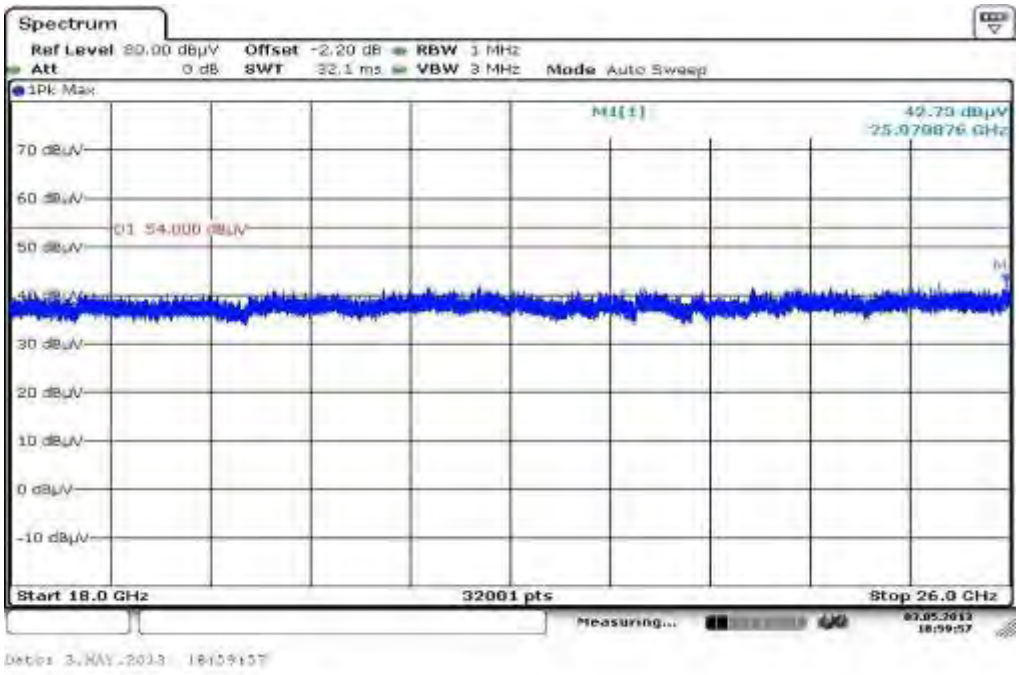


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Lowest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plot 5: Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

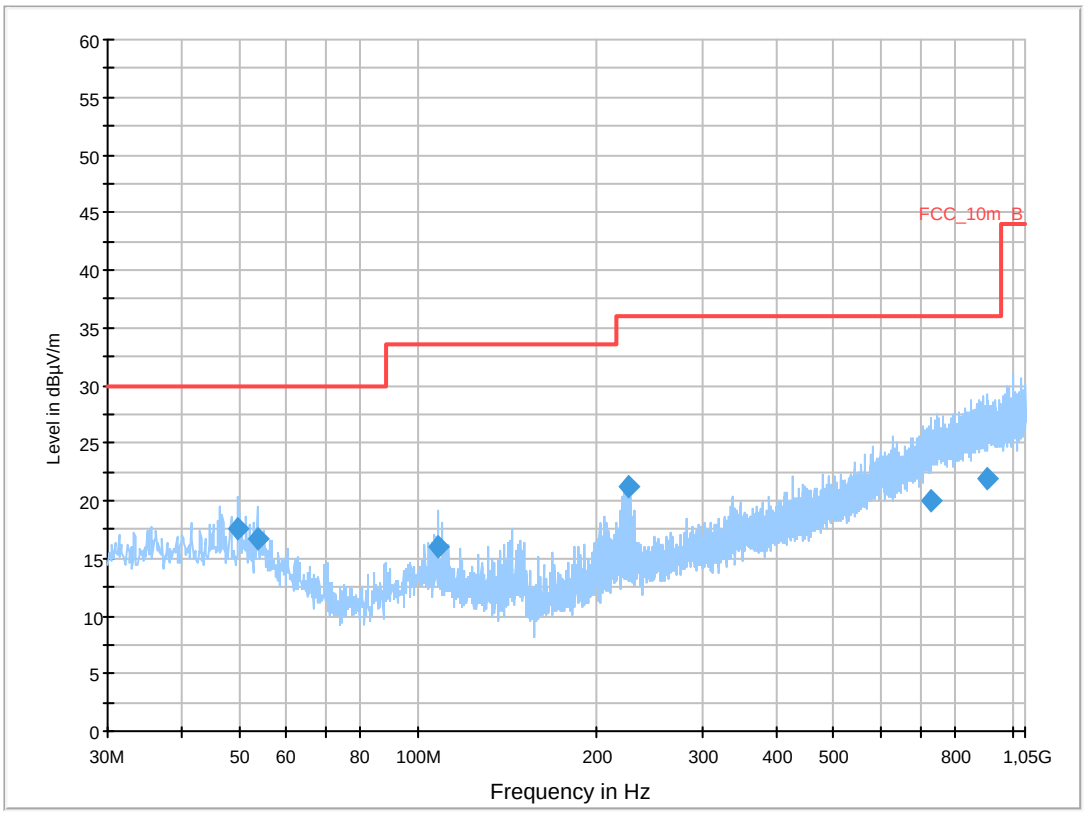
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT40 middle channel
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

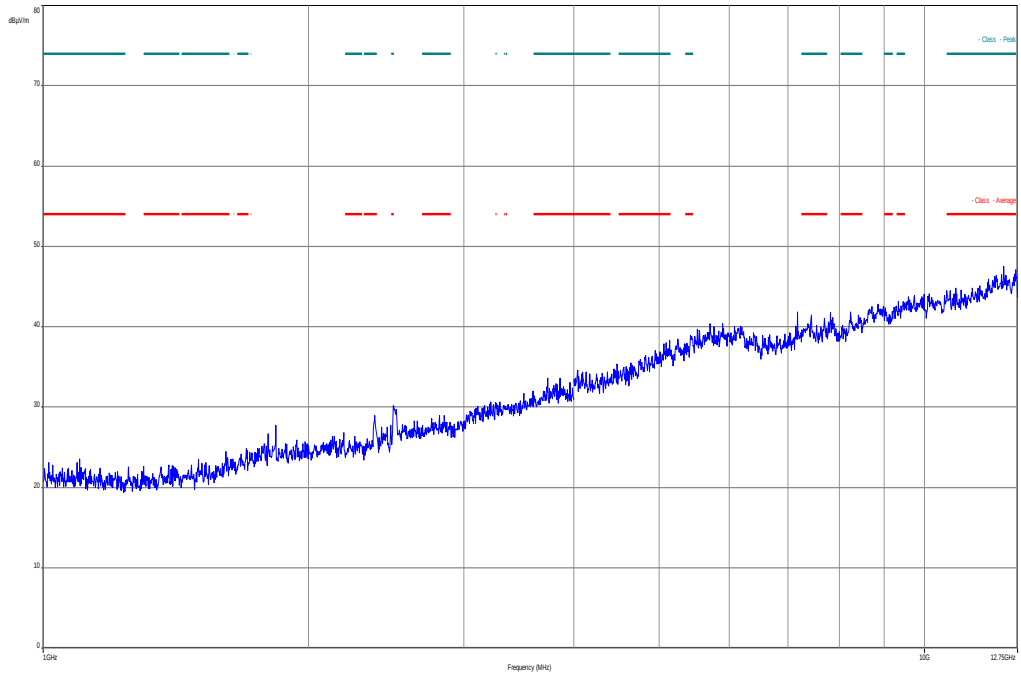
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

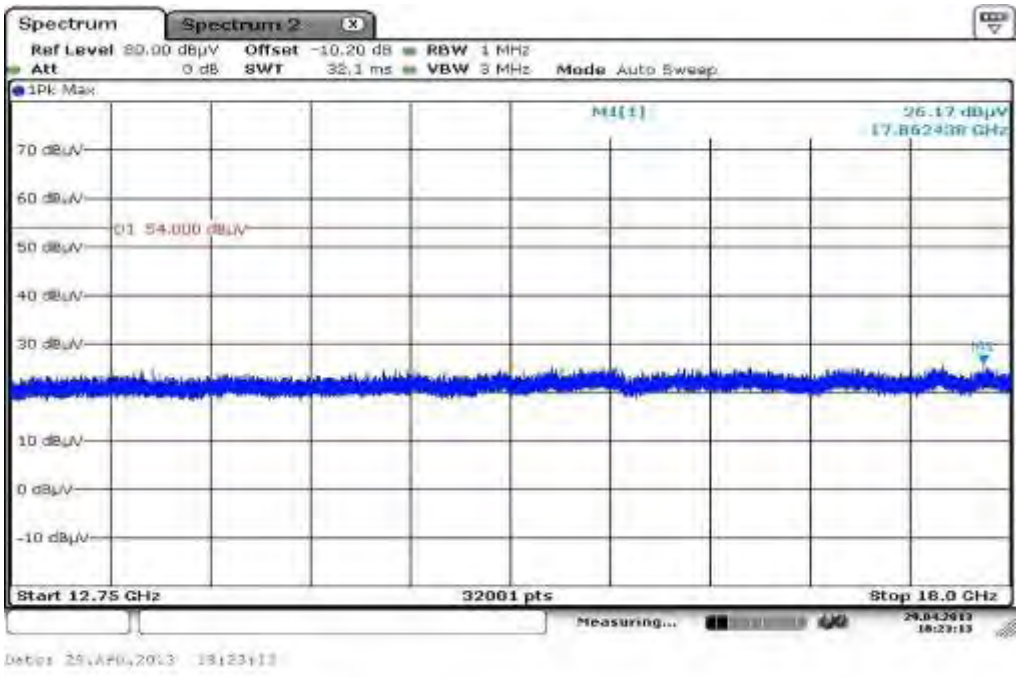
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
49.852350	17.5	1000.0	120.000	112.0	V	100.0	13.4	12.5	30.0	
53.620350	16.7	1000.0	120.000	111.0	V	-5.0	13.0	13.3	30.0	
108.041250	15.9	1000.0	120.000	111.0	V	0.0	11.2	17.6	33.5	
225.136500	21.2	1000.0	120.000	170.0	H	-10.0	12.6	14.8	36.0	
730.621800	20.0	1000.0	120.000	170.0	V	10.0	23.2	16.0	36.0	
903.850800	22.0	1000.0	120.000	170.0	H	260.0	25.2	14.0	36.0	

Plot 6: Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

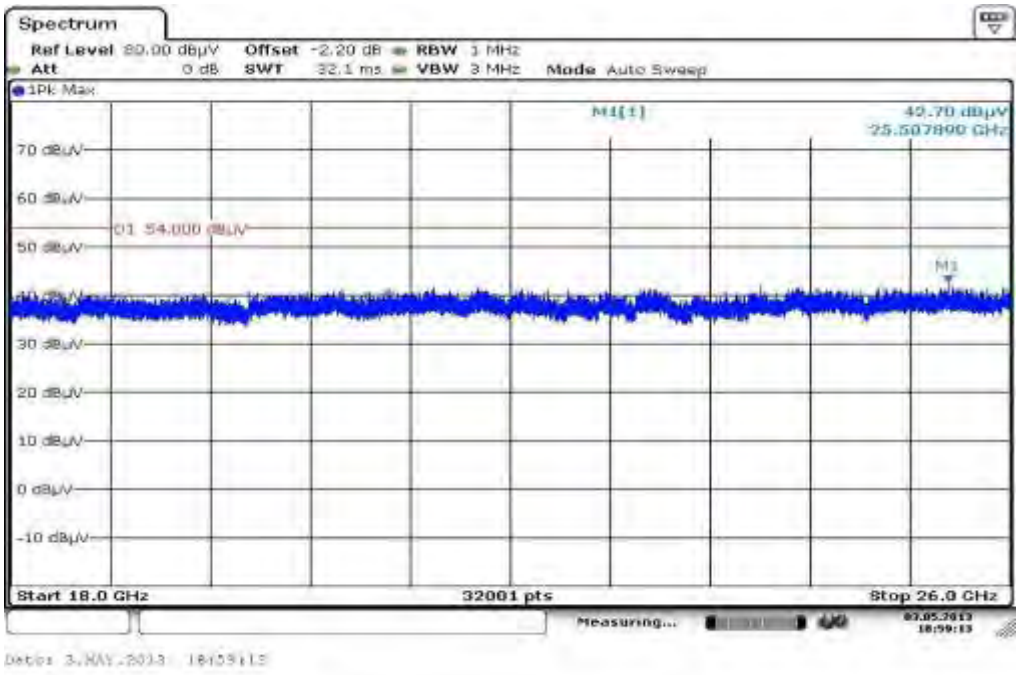


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 7: Middle channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 8: Middle channel, 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 9: Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

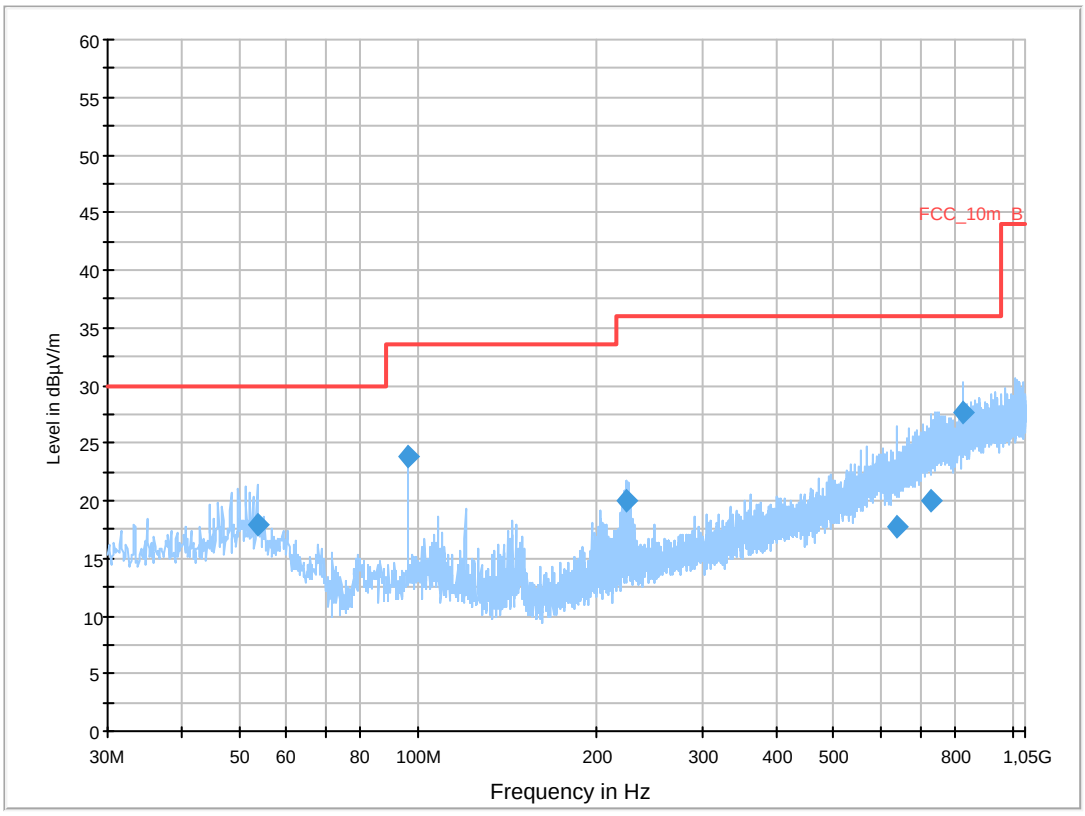
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan tx n-mode HT40 highest channel
Operator Name:	Wolsdorfer
Comment:	DC 12V

Scan Setup: STAN_Fin [EMI radiated]

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

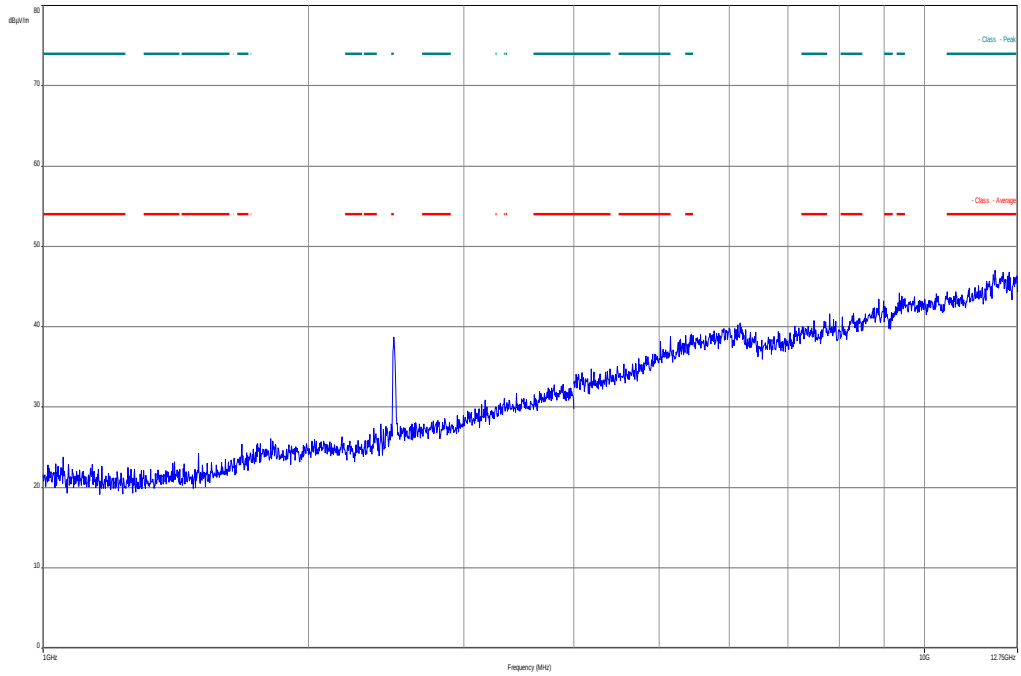
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



Final Result 1

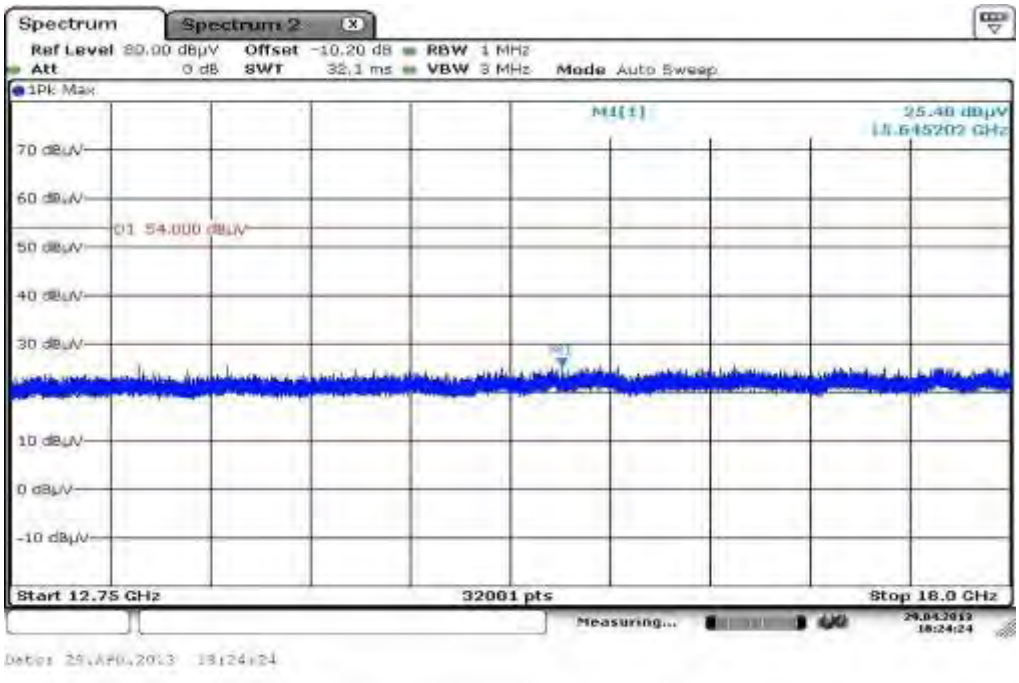
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
53.635500	17.9	1000.0	120.000	111.0	V	261.0	13.0	12.1	30.0	
96.041250	23.9	1000.0	120.000	120.0	V	90.0	11.4	9.6	33.5	
224.368500	19.9	1000.0	120.000	170.0	V	-5.0	12.5	16.1	36.0	
638.182200	17.7	1000.0	120.000	111.0	H	190.0	21.0	18.3	36.0	
728.233050	19.9	1000.0	120.000	132.0	H	280.0	23.2	16.1	36.0	
824.182050	27.7	1000.0	120.000	120.0	V	190.0	24.2	8.3	36.0	

Plot 10: Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization

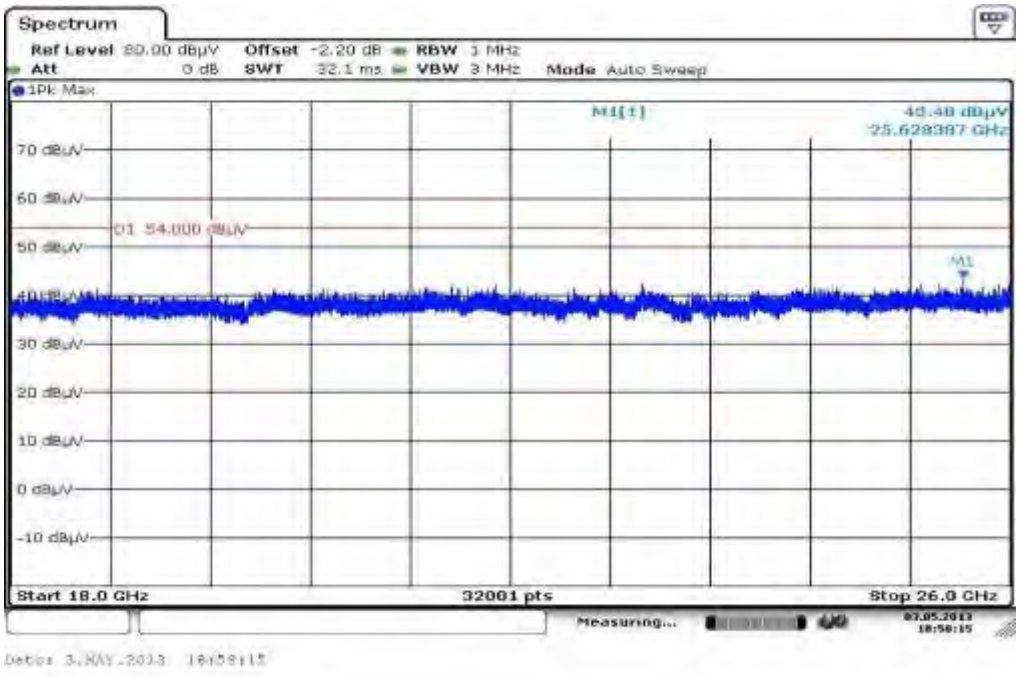


The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 11: Highest channel, 12.75 GHz to 18 GHz, vertical & horizontal polarization



Plot 12: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



9.10 RX spurious emissions radiated

Description:

Measurement of the radiated spurious emissions in idle/receive mode. The results are valid for both modes.

Measurement:

Measurement parameter	
Detector:	Peak / Quasi Peak / RMS
Sweep time:	Auto
Resolution bandwidth:	F > 1 GHz: 1 MHz F < 1 GHz: 100 kHz
Video bandwidth:	Sweep: 100 kHz Remeasurement: 10 Hz / 3 MHz
Span:	30 MHz to 25 GHz
Trace-Mode:	Max Hold

Limits:

FCC		IC
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.		
Measurement uncertainty	± 3 dB	

Result: **Passed.**

Plots: RX / Idle – mode (ANT M3002-66494)

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

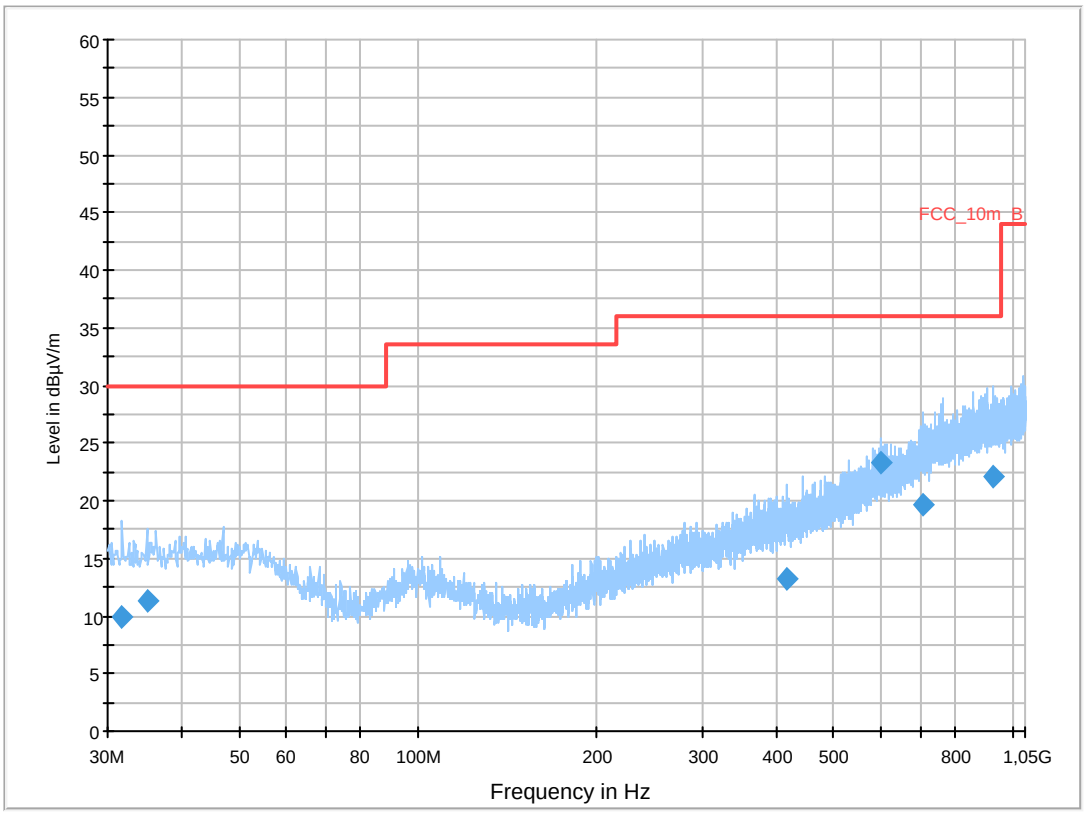
Common Information

EUT:	WLANBV2-A + antenna M3002-66494
Serial Number:	eval 2
Test Description:	FCC part 15 B class B @ 10 m
Operating Conditions:	wlan rx
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

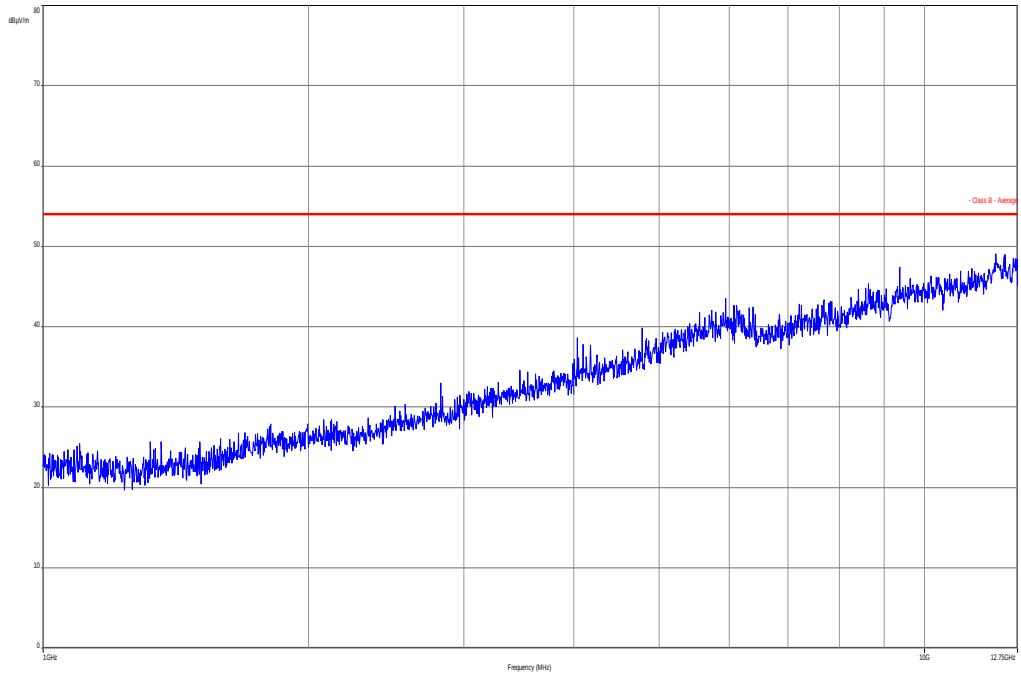
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



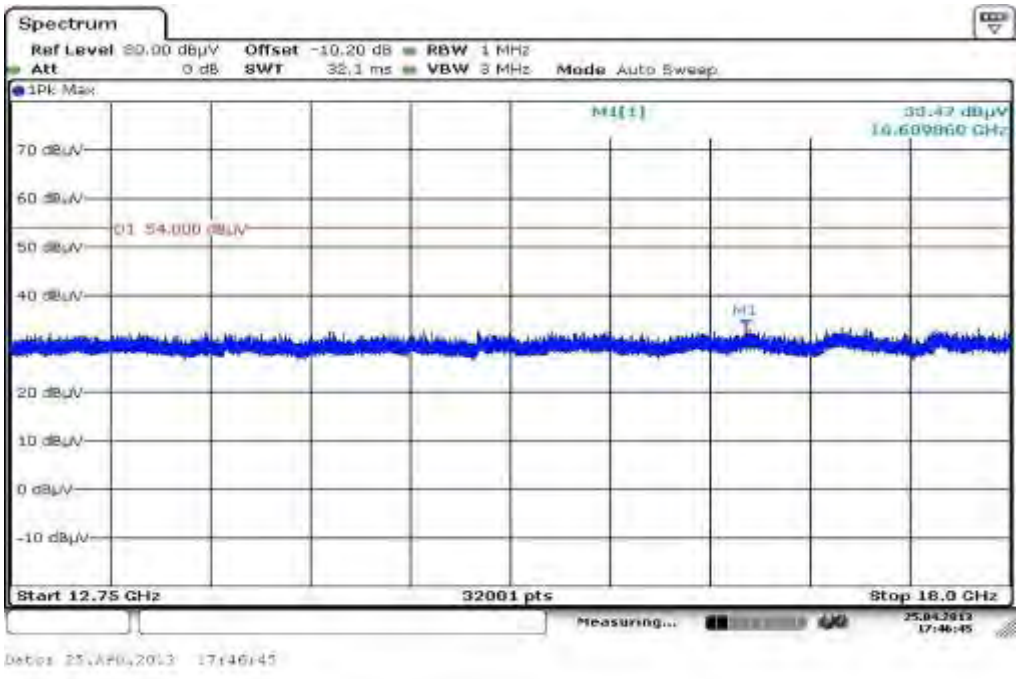
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
31.615350	10.0	1000.0	120.000	144.0	V	10.0	12.7	20.0	30.0	
34.989600	11.2	1000.0	120.000	170.0	V	10.0	13.0	18.8	30.0	
415.315200	13.2	1000.0	120.000	170.0	V	280.0	17.1	22.8	36.0	
599.981700	23.3	1000.0	120.000	170.0	H	261.0	20.8	12.7	36.0	
708.236550	19.7	1000.0	120.000	170.0	H	0.0	22.7	16.3	36.0	
930.388650	22.0	1000.0	120.000	143.0	V	10.0	25.3	14.0	36.0	

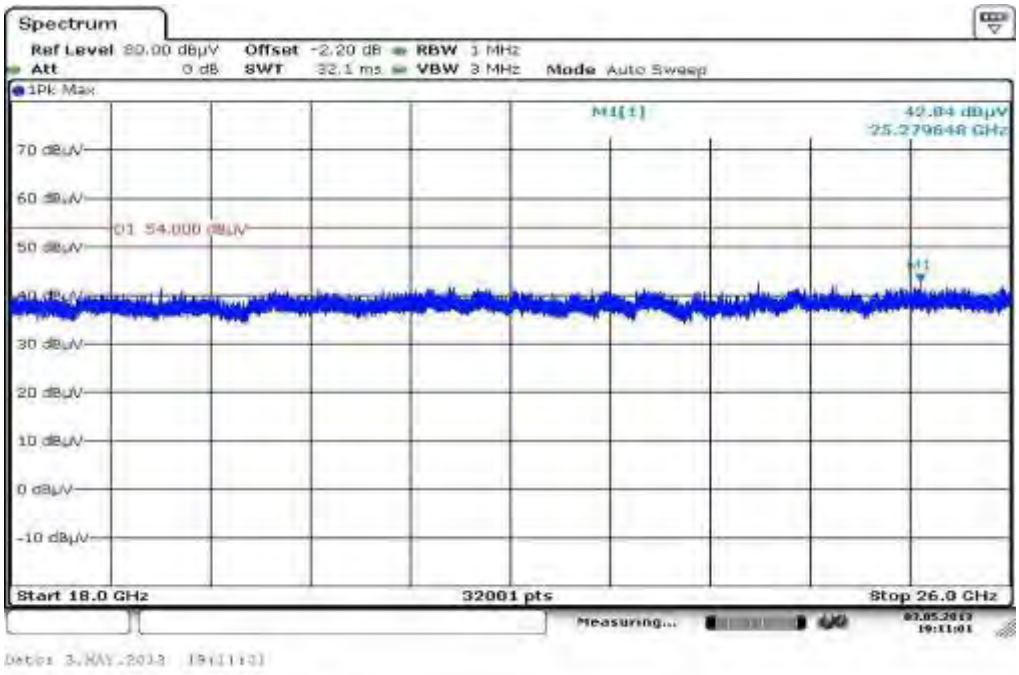
Plot 2: 1 GHz to 12.75 GHz, vertical & horizontal polarization



Plot 3: 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plots: RX / Idle – mode (ANT 453564154611)

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

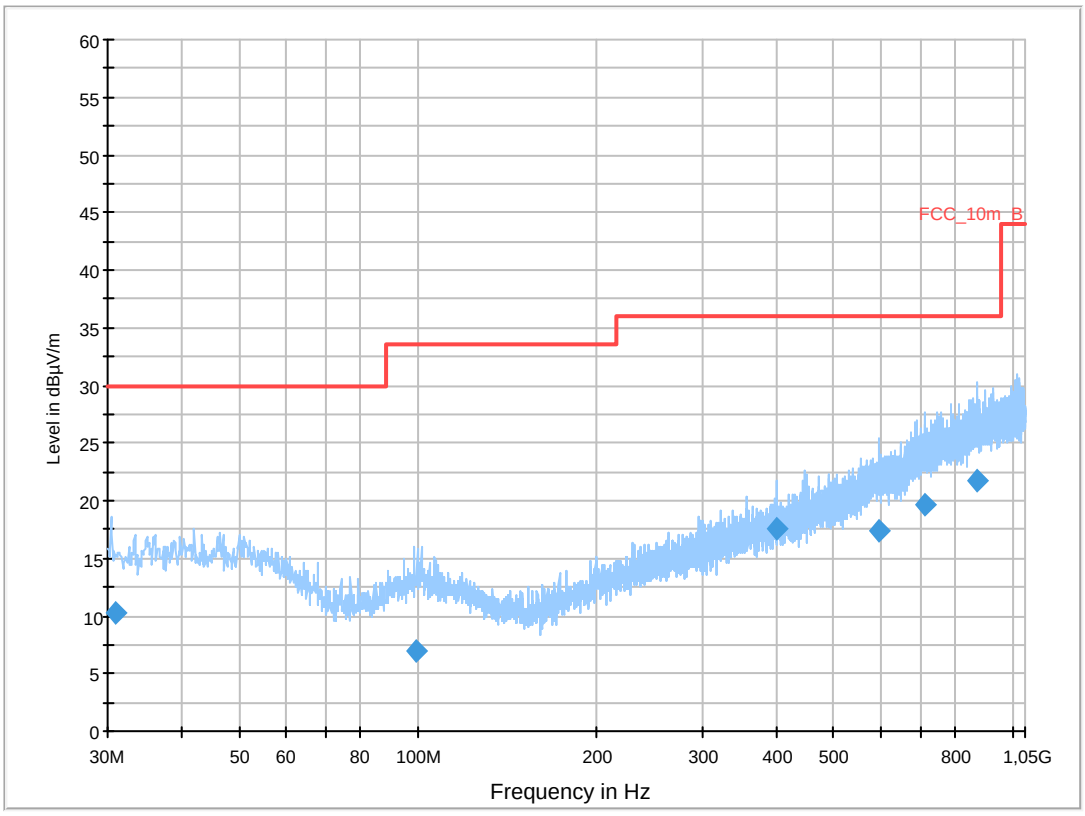
Common Information

EUT:	WLANBV2-A + antenna 453564154611
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan rx
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

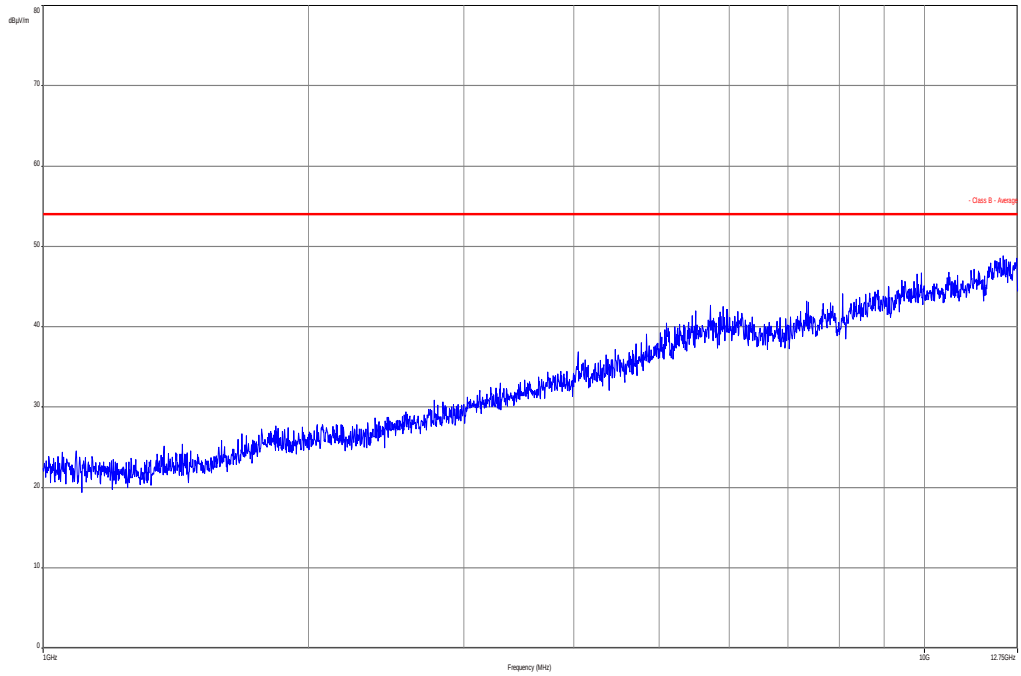
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



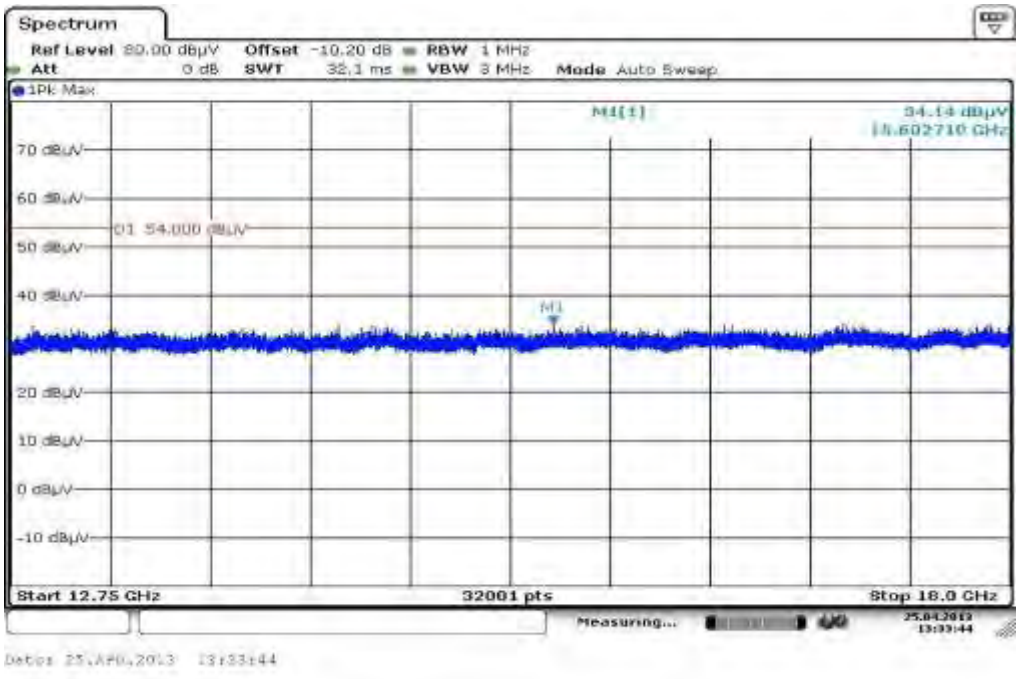
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
30.971201	10.2	1000.0	120.000	162.0	V	-9.0	12.6	19.8	30.0	
98.914950	6.9	1000.0	120.000	170.0	H	280.0	11.8	26.6	33.5	
399.990450	17.5	1000.0	120.000	170.0	V	268.0	16.9	18.5	36.0	
593.881650	17.4	1000.0	120.000	170.0	V	10.0	20.6	18.6	36.0	
712.192800	19.7	1000.0	120.000	170.0	V	100.0	22.8	16.3	36.0	
868.794150	21.7	1000.0	120.000	105.0	V	100.0	24.8	14.3	36.0	

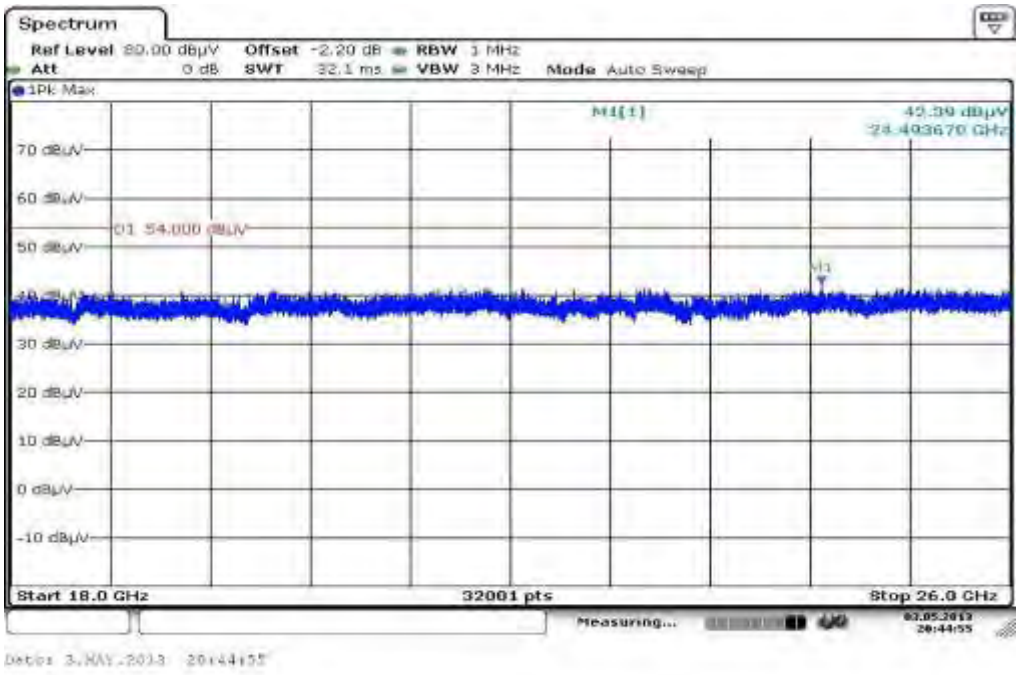
Plot 2: 1 GHz to 12.75 GHz, vertical & horizontal polarization



Plot 3: 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plots: RX / Idle – mode (ANT 453564175981)

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

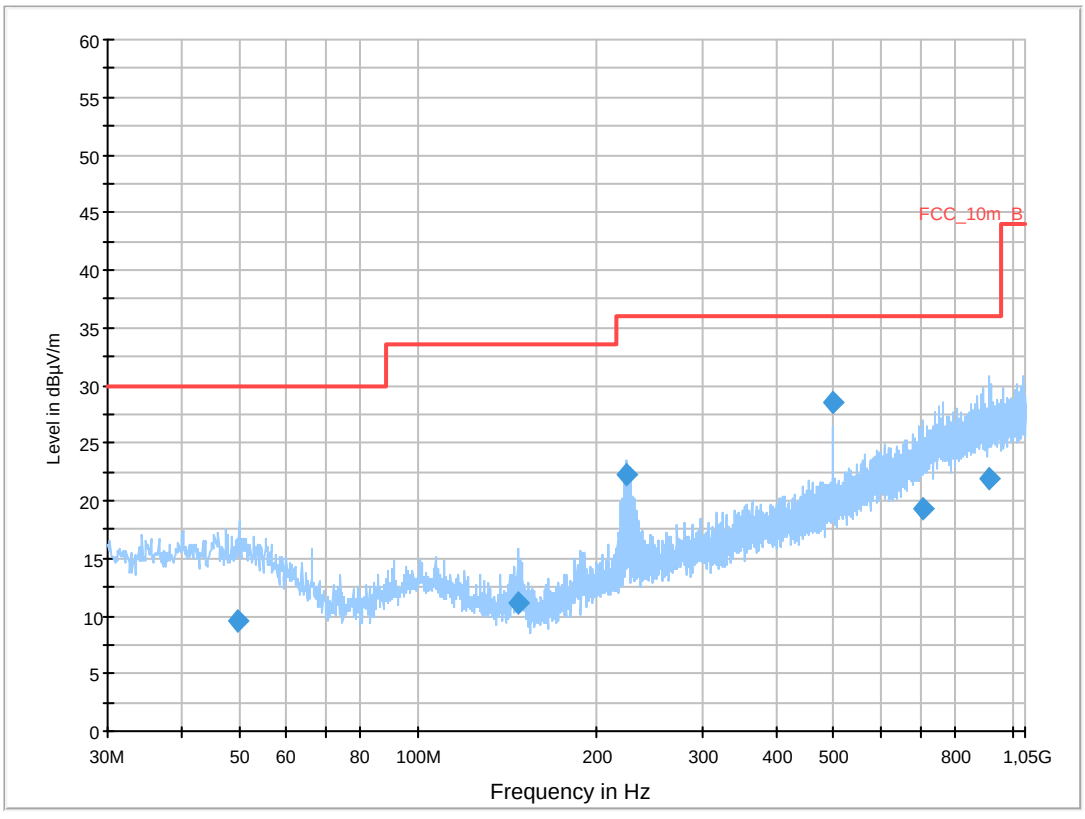
Common Information

EUT:	WLANBV2-A + antenna 453564175981
Serial Number:	eval 2
Test Description:	FCC part 15 C class B @ 10 m
Operating Conditions:	wlan rx
Operator Name:	Wolsdorfer
Comment:	DC 5V

Scan Setup: STAN_Fin [EMI radiated]

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

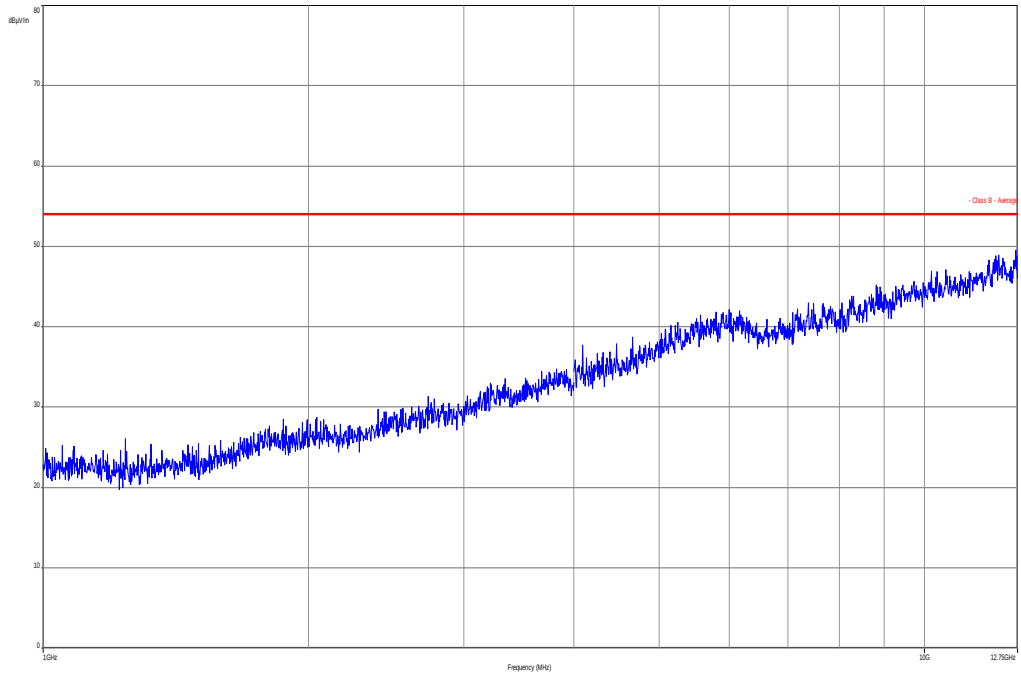
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



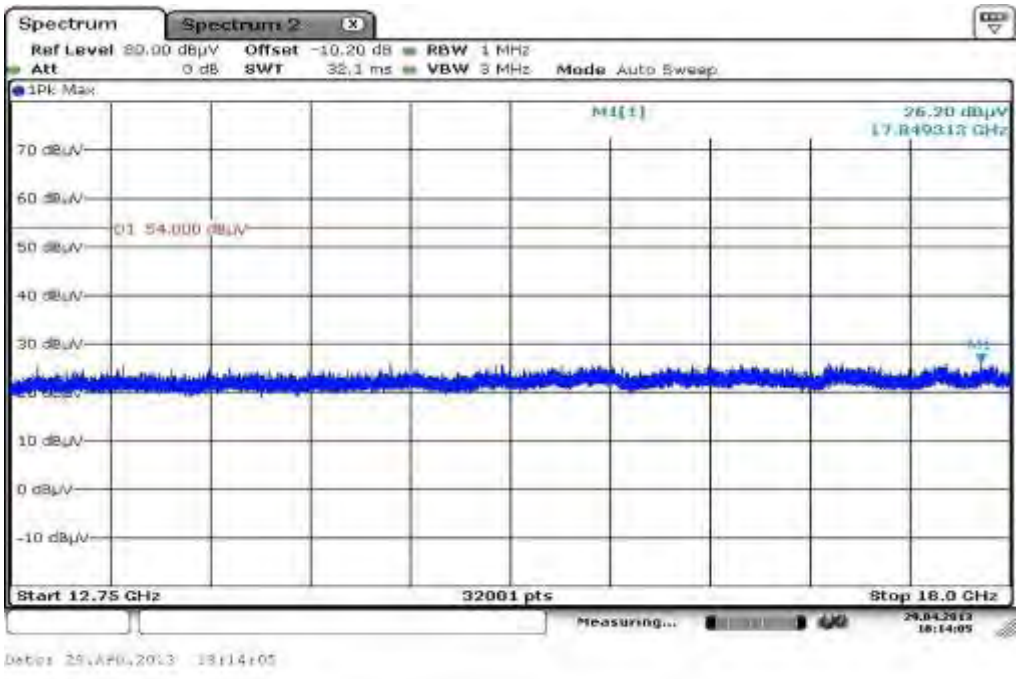
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
49.872750	9.6	1000.0	120.000	170.0	V	3.0	13.4	20.4	30.0	
147.683850	11.0	1000.0	120.000	154.0	V	272.0	8.9	22.5	33.5	
223.424400	22.3	1000.0	120.000	170.0	V	171.0	12.5	13.7	36.0	
500.001600	28.4	1000.0	120.000	170.0	H	10.0	18.7	7.6	36.0	
704.979750	19.4	1000.0	120.000	170.0	V	90.0	22.6	16.6	36.0	
913.588350	21.9	1000.0	120.000	98.0	H	3.0	25.2	14.1	36.0	

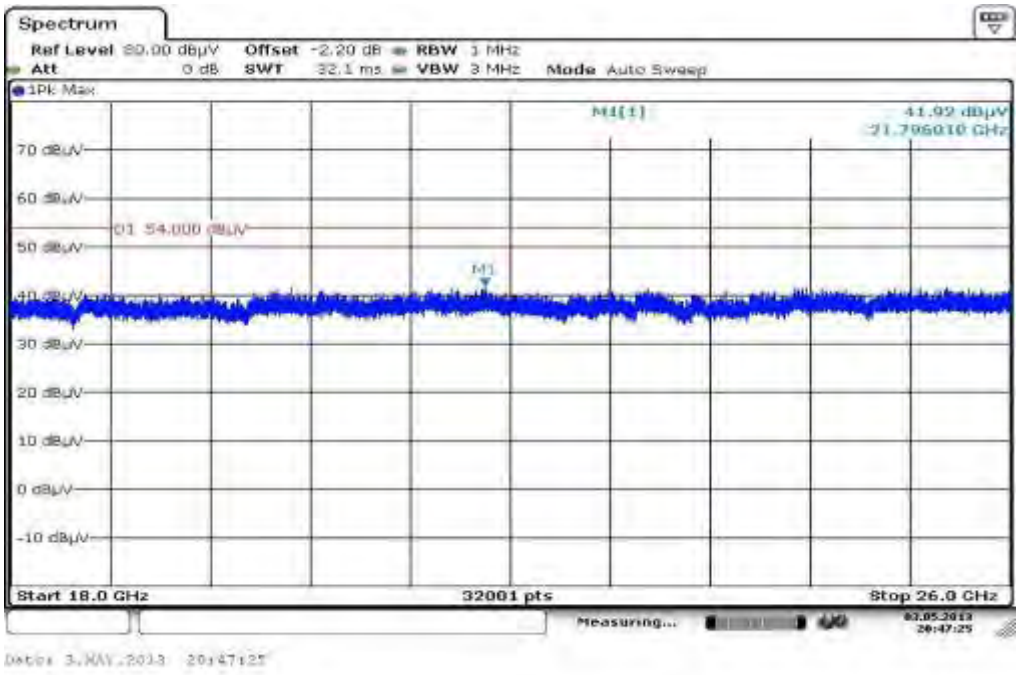
Plot 2: 1 GHz to 12.75 GHz, vertical & horizontal polarization



Plot 3: 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



Plots: RX / Idle – mode (ANT 453564271931)

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

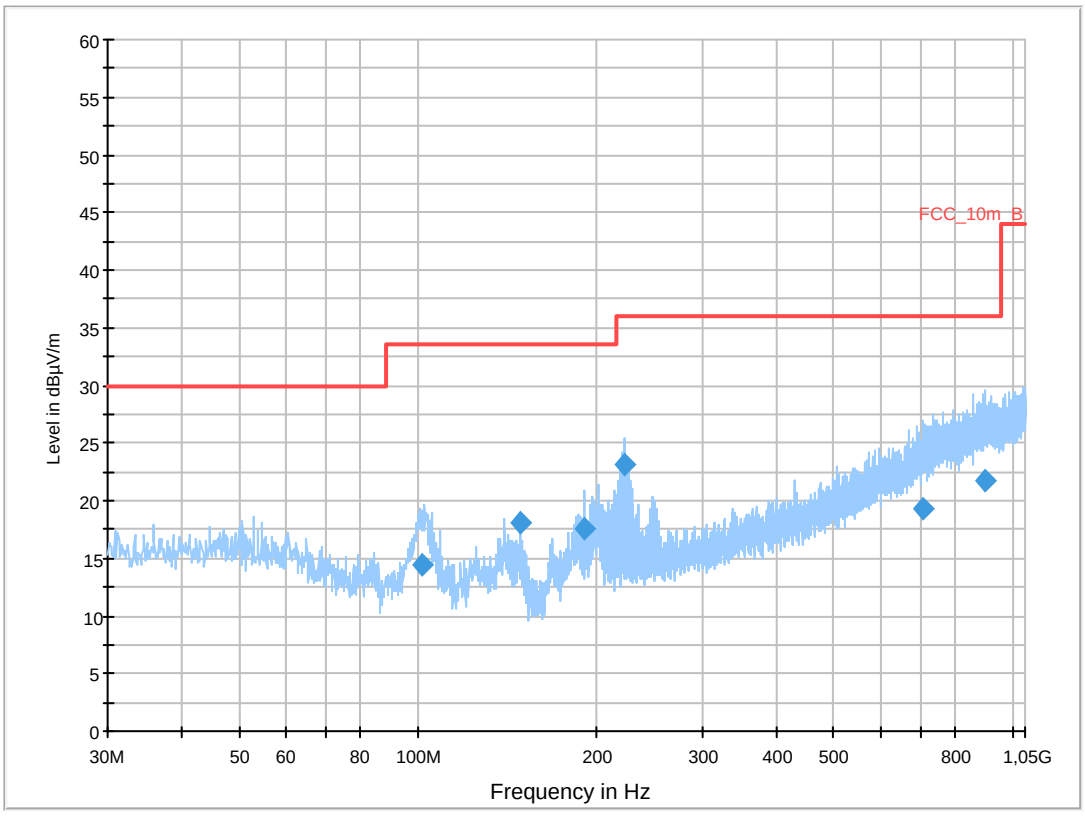
Common Information

EUT:	WLANBV2-A + antenna 453564271931
Serial Number:	eval
Test Description:	FCC part 15 B class B @ 10 m
Operating Conditions:	wlan rx mode
Operator Name:	Wolsdorfer
Comment:	AC: 230 V / 50 Hz; grounded

Scan Setup: STAN_Fin [EMI radiated]

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

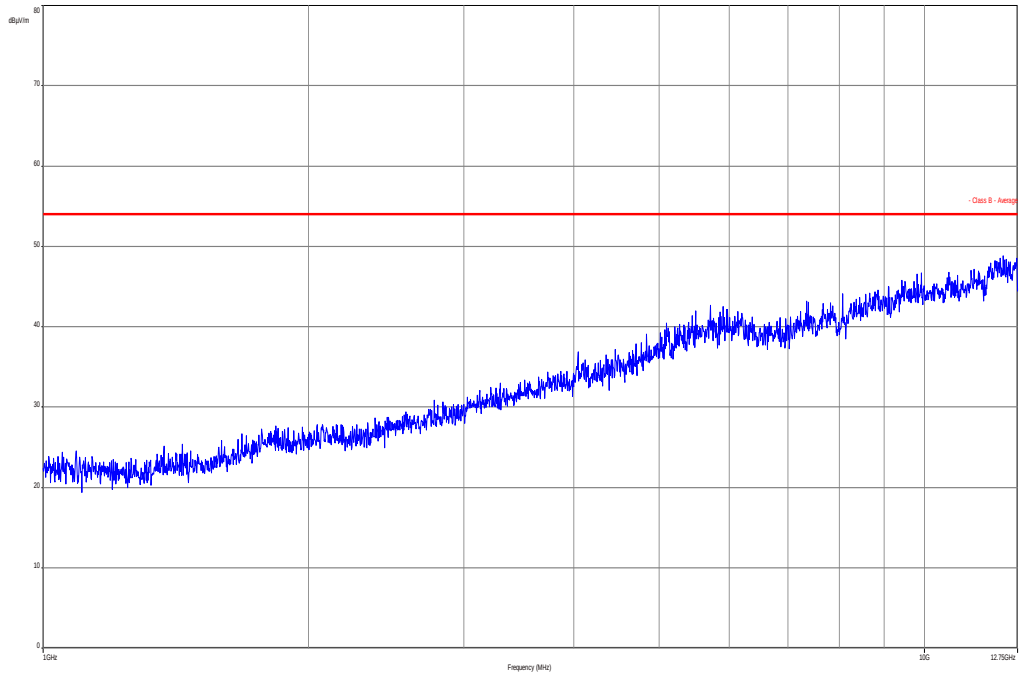
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



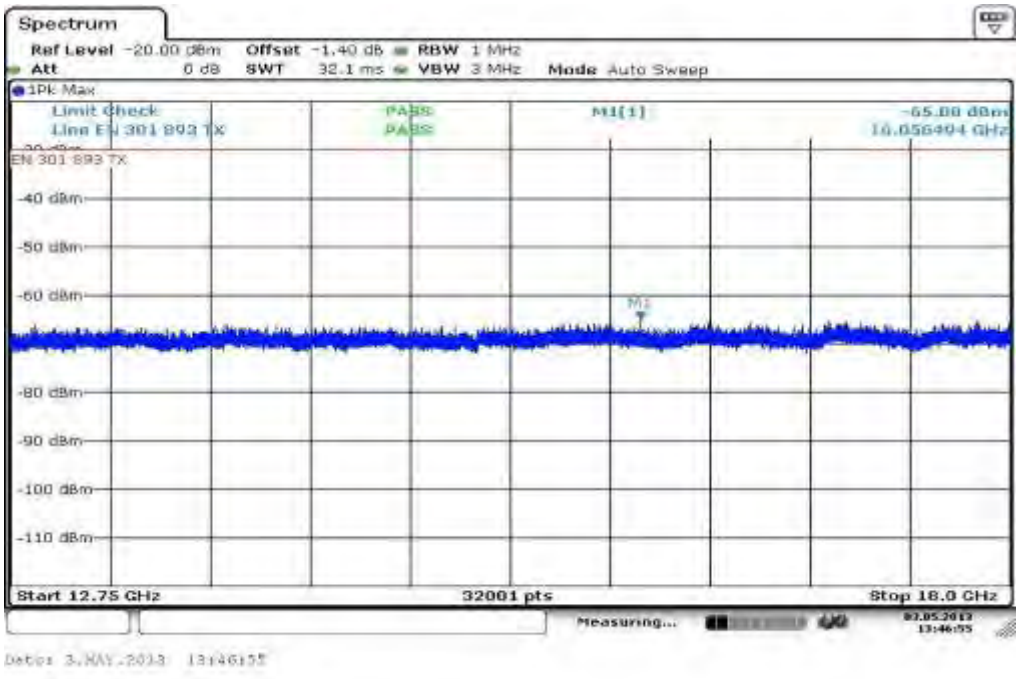
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
101.661450	14.4	1000.0	120.000	122.0	V	175.0	11.7	19.1	33.5	
148.281450	18.0	1000.0	120.000	113.0	V	0.0	8.9	15.5	33.5	
190.671300	17.5	1000.0	120.000	98.0	V	-2.0	11.1	16.0	33.5	
222.381300	23.2	1000.0	120.000	98.0	V	268.0	12.5	12.8	36.0	
706.793700	19.4	1000.0	120.000	170.0	H	100.0	22.7	16.6	36.0	
896.777400	21.8	1000.0	120.000	113.0	H	266.0	25.2	14.2	36.0	

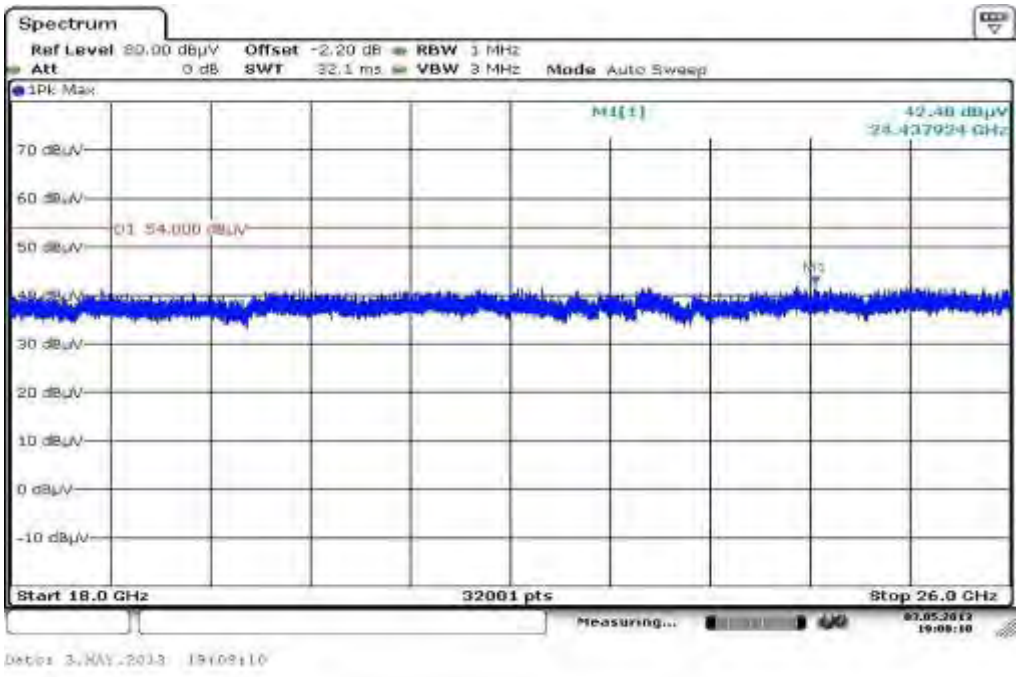
Plot 2: 1 GHz to 12.75 GHz, vertical & horizontal polarization



Plot 3: 12.75 GHz to 18 GHz, vertical & horizontal polarization



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



9.11 Spurious emissions radiated < 30 MHz

Description:

Measurement of the radiated spurious emissions in transmit mode below 30 MHz. The EUT is set to channel 6. This measurement is representative for all channels and modes. If peaks are found channel 1 and channel 11 will be measured too. The measurement is performed with the data rate producing the highest output power. 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:

FCC		IC
TX 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

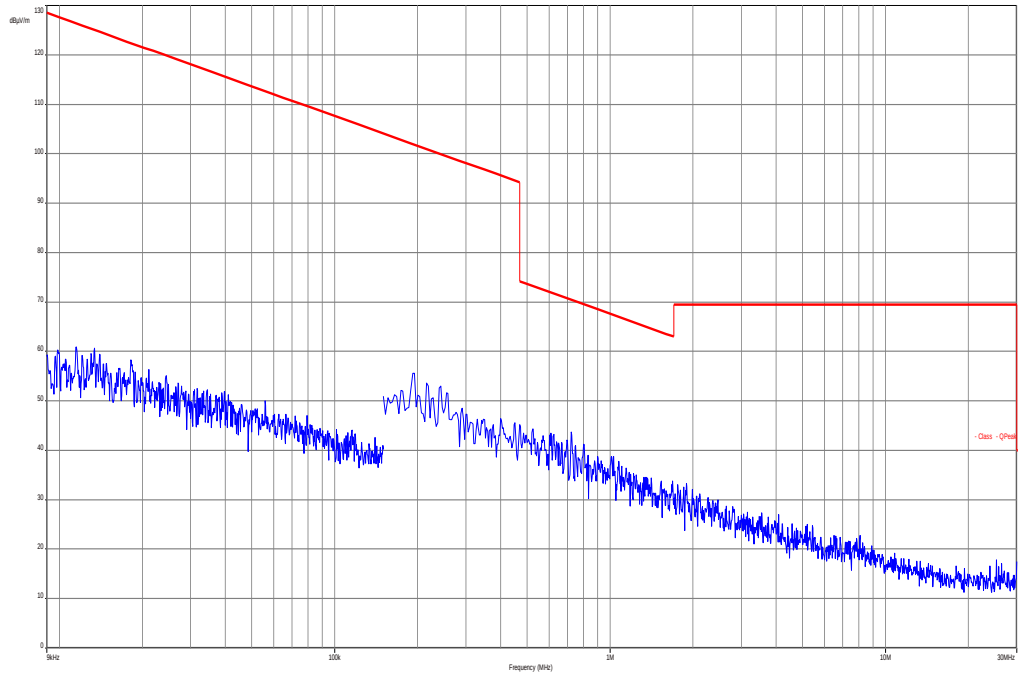
Results:

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

Result: Passed

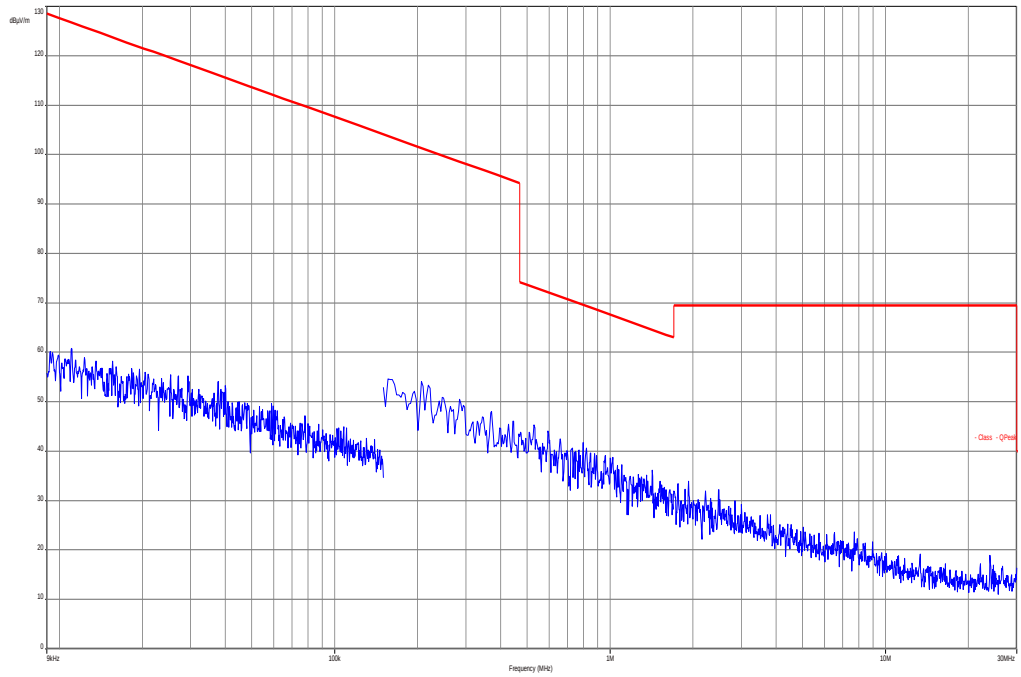
Plots: TX mode (ANT M3002-66494)

Plot 1: 9 kHz to 30 MHz



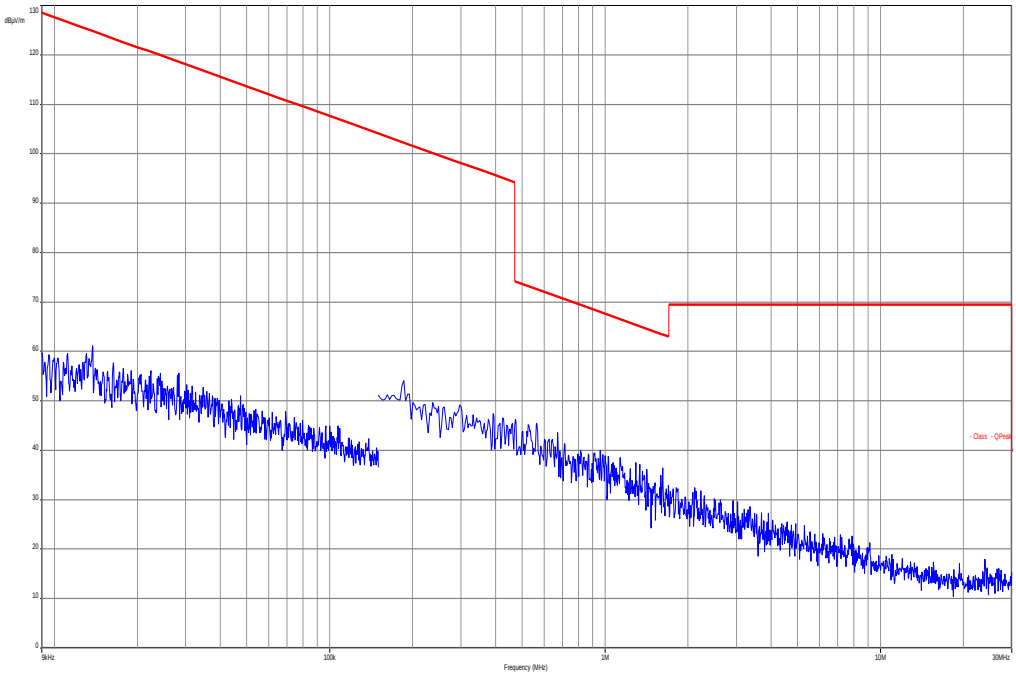
Plot: RX / Idle – mode (ANT M3002-66494)

Plot 1: 9 kHz to 30 MHz



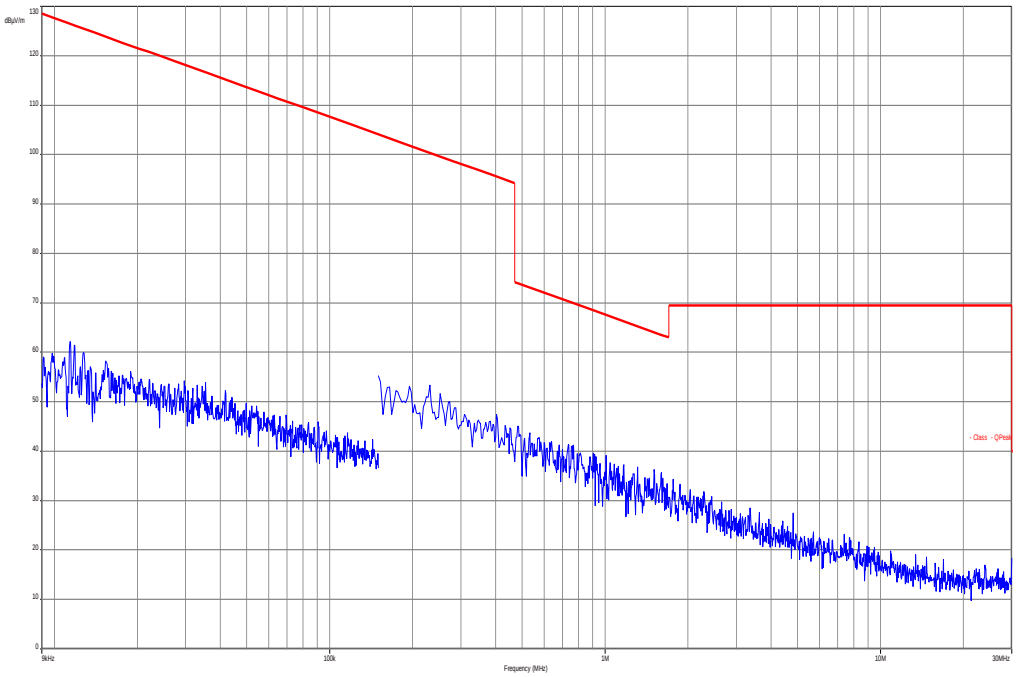
Plot: TX mode (ANT 453564154611)

Plot 1: 9 kHz to 30 MHz



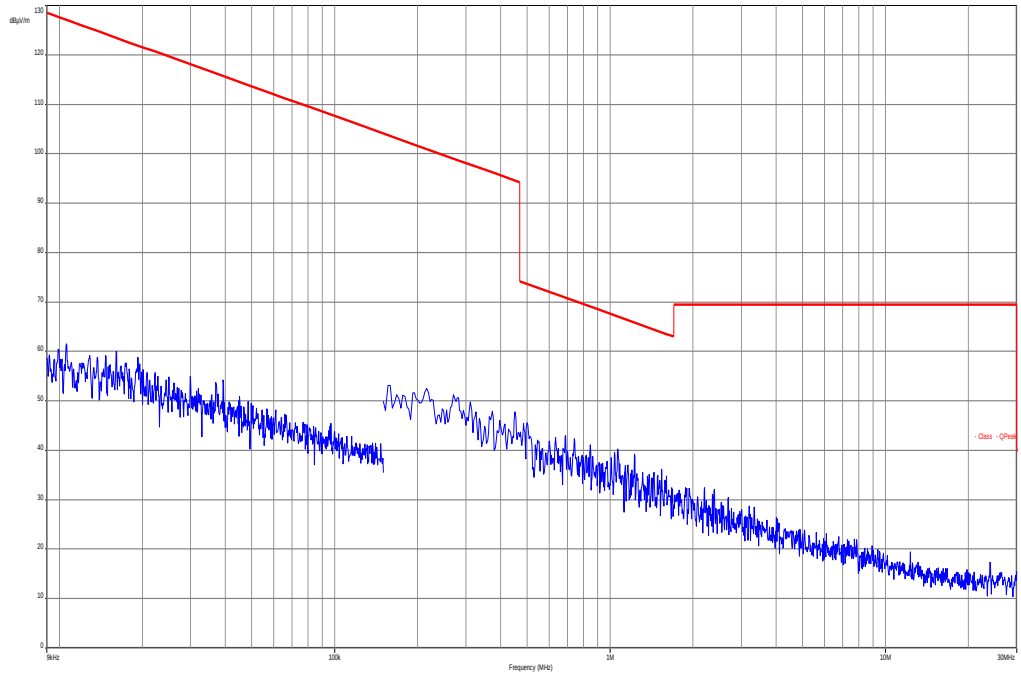
Plot: RX / Idle – mode (ANT 453564154611)

Plot 1: 9 kHz to 30 MHz



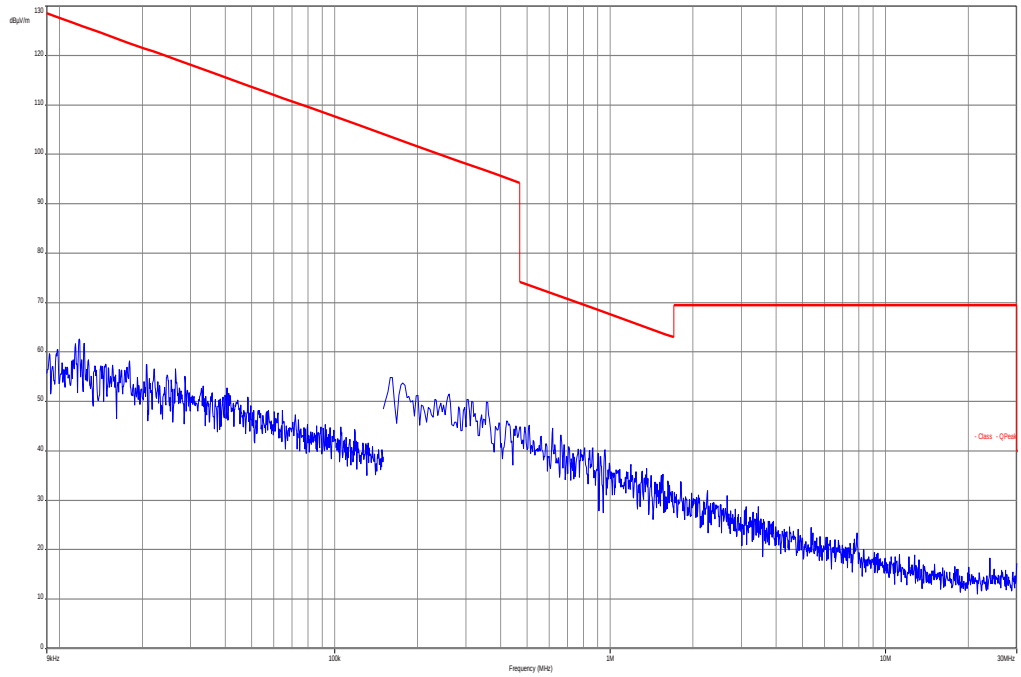
Plot: TX mode (ANT 453564175981)

Plot 1: 9 kHz to 30 MHz



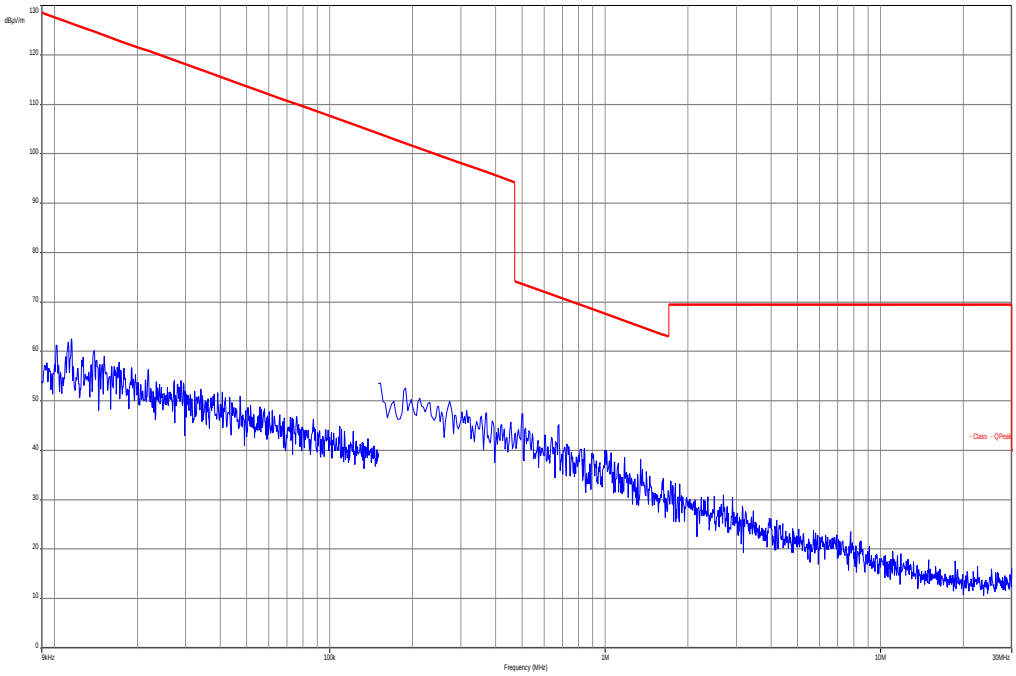
Plot: RX / Idle – mode (ANT 453564175981)

Plot 1: 9 kHz to 30 MHz



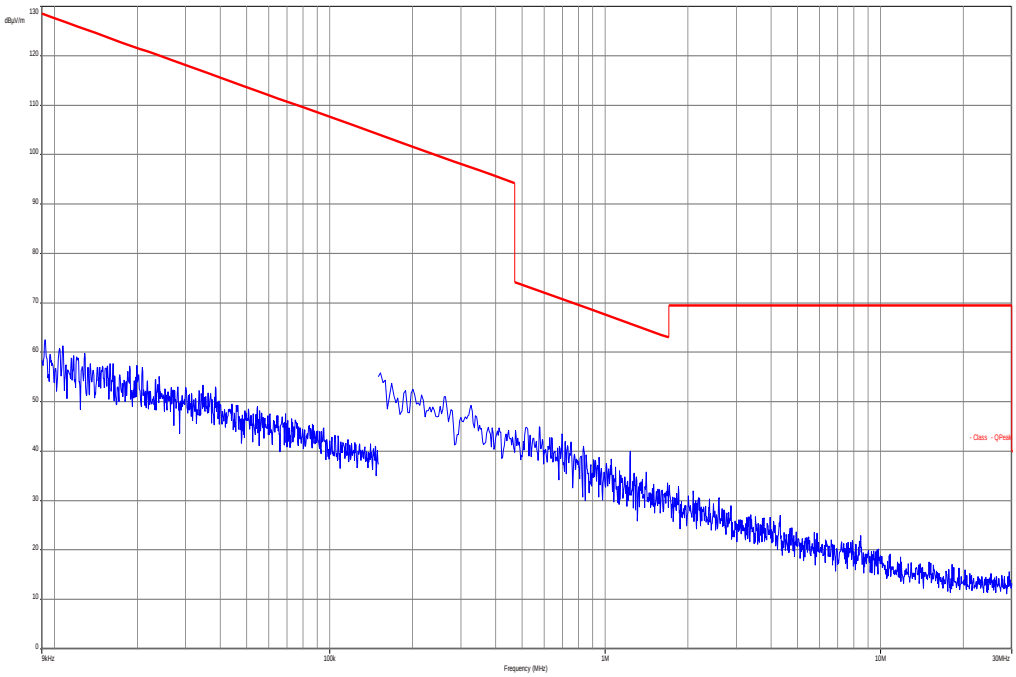
Plot: TX mode (ANT 453564271931)

Plot 1: 9 kHz to 30 MHz



Plot: RX / Idle – mode (ANT 453564271931)

Plot 1: 9 kHz to 30 MHz



9.12 Spurious emissions conducted < 30 MHz

Description:

Measurement of the conducted spurious emissions in transmit mode below 30 MHz. The EUT is set to channel 6. This measurement is repeated for DSSS and OFDM modulation. If peaks are found channel 1 and channel 11 will be measured too. The measurement is performed with the data rate producing the highest output power. 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: 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:

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

*Decreases with the logarithm of the frequency

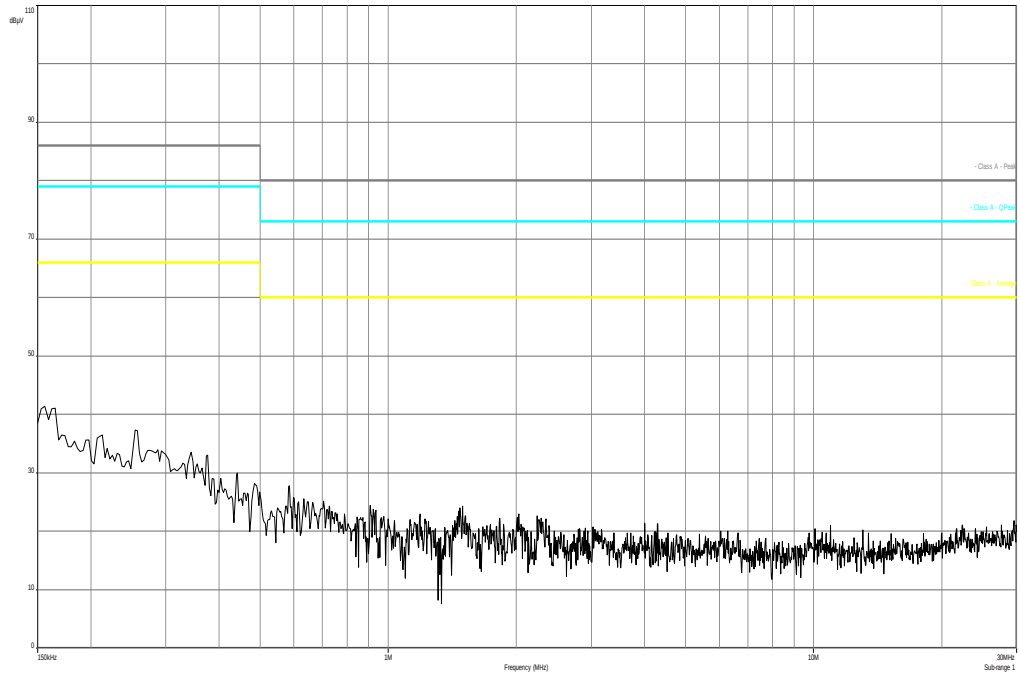
Results:

TX Spurious Emissions Conducted < 30 MHz [dBµV/m]		
F [MHz]	Detector	Level [dBµV/m]
No peaks detected. All detected peak values are below the average limits.		
Measurement uncertainty	± 3 dB	

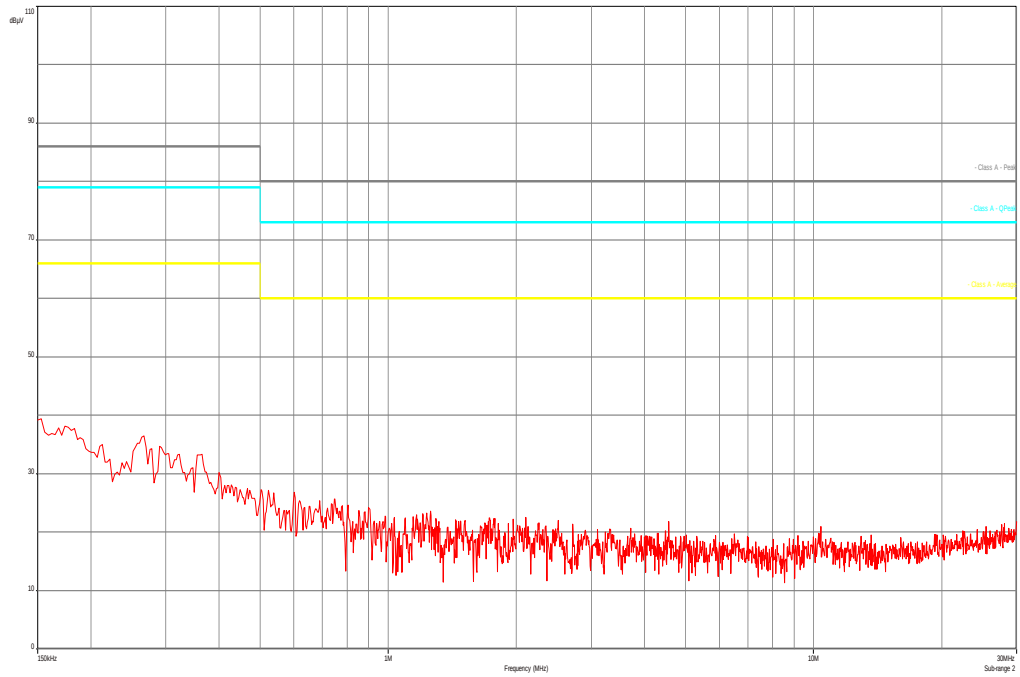
Result: **Passed**

Plots:

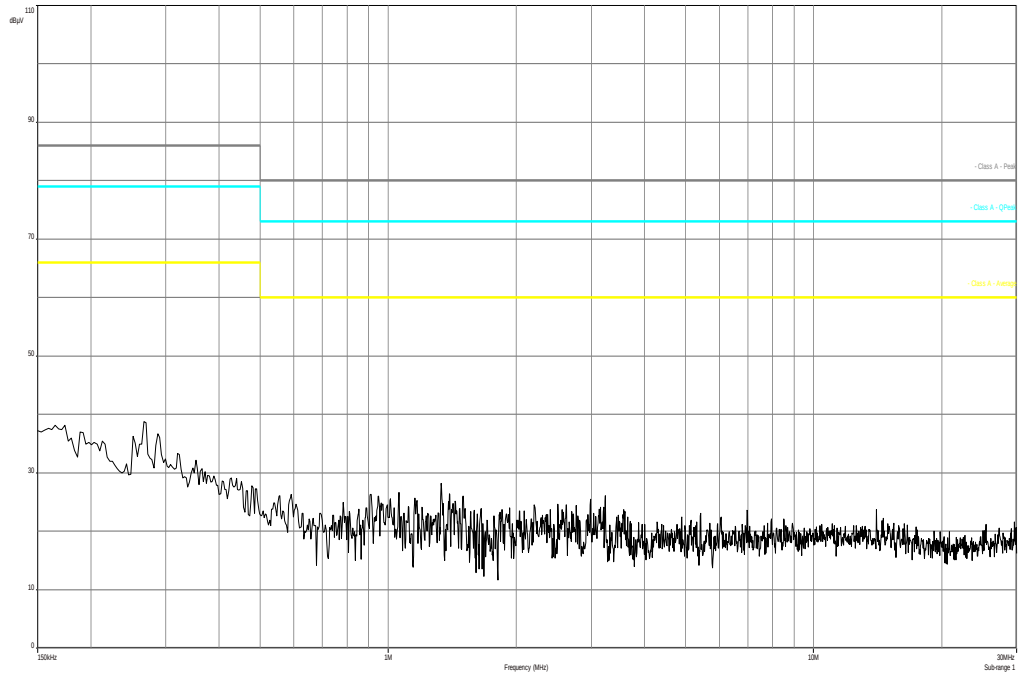
Plot 1: TX mode, 150 kHz to 30 MHz, phase line



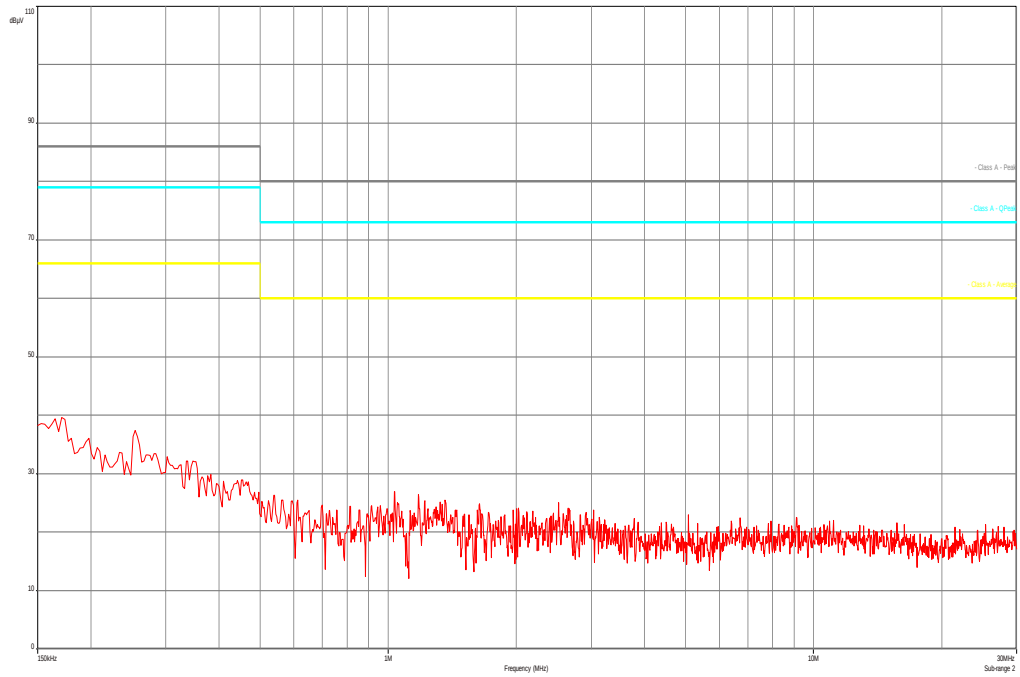
Plot 2: TX mode, 150 kHz to 30 MHz, neutral line



Plot 3: RX / Idle – mode, 150 kHz to 30 MHz, phase line



Plot 4: RX / Idle – mode, 150 kHz to 30 MHz, neutral line



10 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	n. a.	DC power supply, 60Vdc, 50A, 1200 W	6032A	HP Meßtechnik	2818A03450	300001040	Ve	12.01.2012	12.01.2015
2	n. a.	Double-Ridged Waveguide Horn Antenna 1-18.0GHz	3115	EMCO	8812-3088	300001032	vlKl!	08.05.2013	08.05.2015
3	n. a.	Active Loop Antenna 10 kHz to 30 MHz	6502	EMCO	2210	300001015	ne		
4	n. a.	Anechoic chamber	FAC 3/5m	MWB / TDK	87400/02	300000996	ev		
5	n. a.	Switch / Control Unit	3488A	HP Meßtechnik	*	300000199	ne		
6	n. a.	Switch / Control Unit	3488A	HP Meßtechnik	2719A15013	300001156	ne		
7	n. a.	Three-Way Power Splitter, 50 Ohm	11850C	HP Meßtechnik		300000997	ne		
8	n. a.	Band Reject filter	WRCG1855/1910-1835/1925-40/8SS	Wainwright	7	300003350	ev		
9	n. a.	Band Reject filter	WRCG2400/2483-2375/2505-50/10SS	Wainwright	11	300003351	ev		
10	n. a.	Highpass Filter	WHKX7.0/18G-8SS	Wainwright	18	300003789	ne		
11	n. a.	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	371	300003854	vlKl!	14.10.2011	14.10.2014
12	n. a.	MXE EMI Receiver 20 Hz bis 26,5 GHz	N9038A	Agilent Technologies	MY51210197	300004405	k	21.02.2013	21.02.2014

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

11 Observations

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

Annex A Photographs of the test setup

Photo documentation:

Photo 1: Ant M3002-66494 (Chamber F)

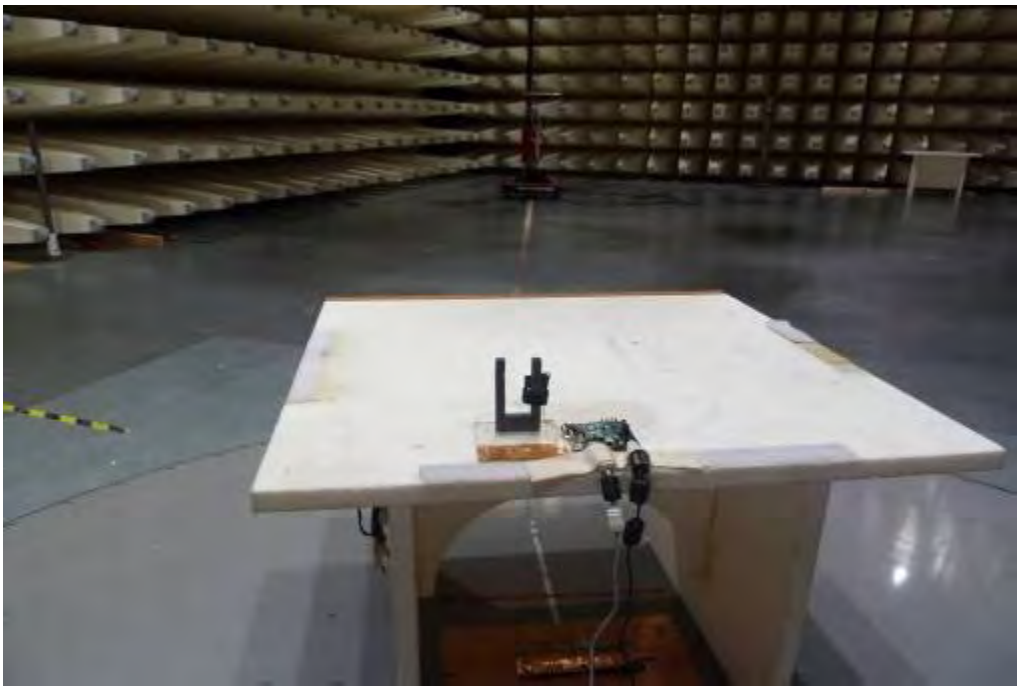


Photo 2: Ant M3002-66494 (Chamber F)

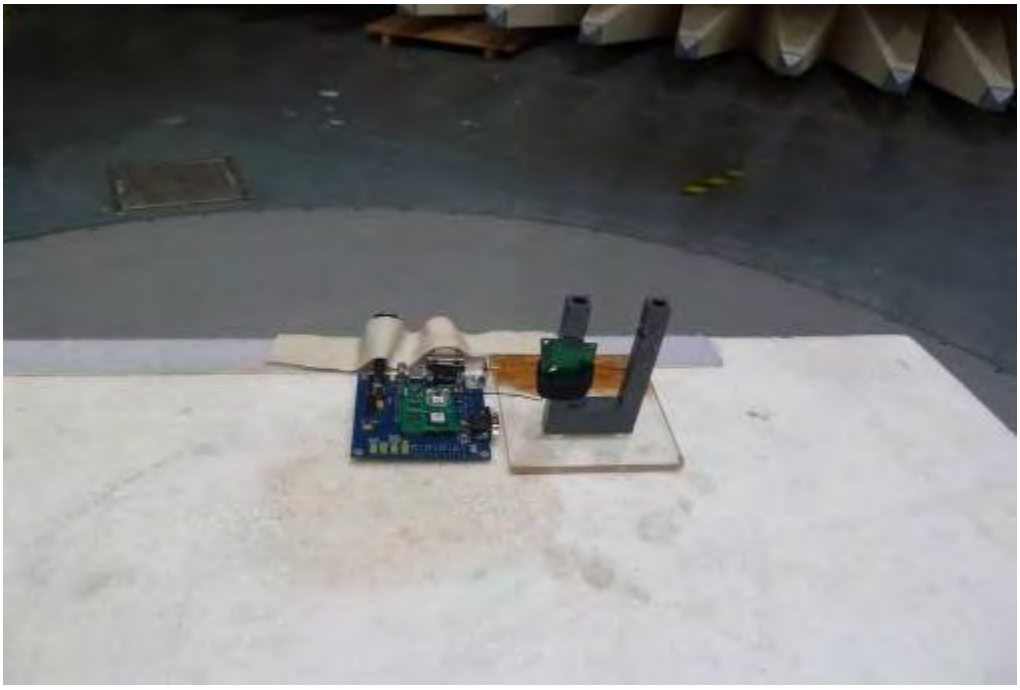


Photo 3: Ant 453564154611 (Chamber F)

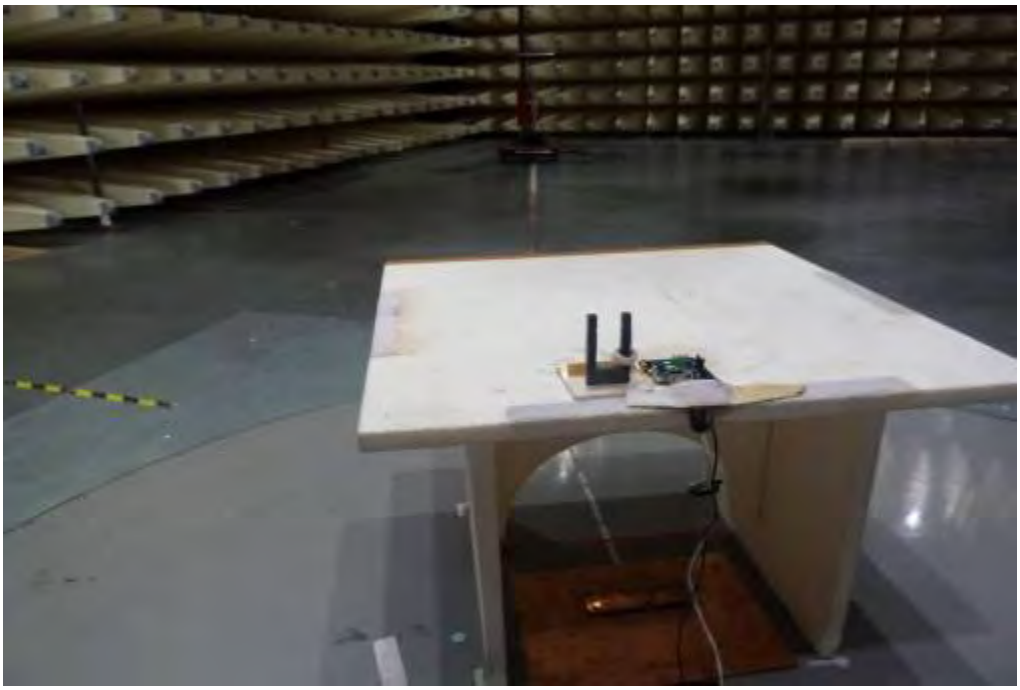


Photo 4: Ant 453564154611 (Chamber F)

Photo 5: Ant 453564175981 (Chamber F)

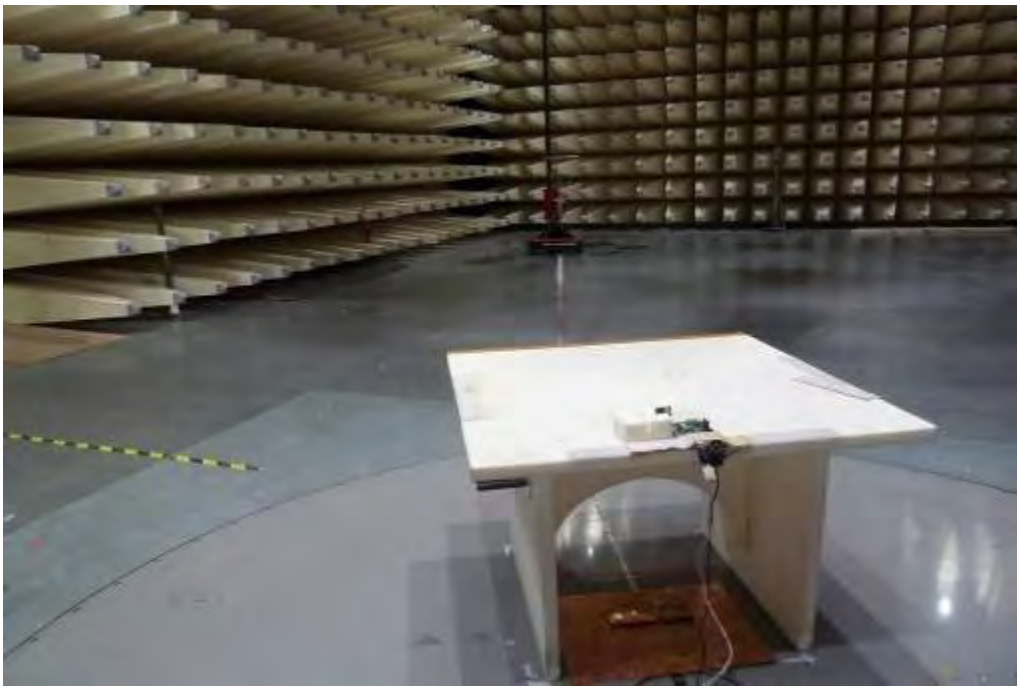


Photo 6: Ant 453564175981 (Chamber F)

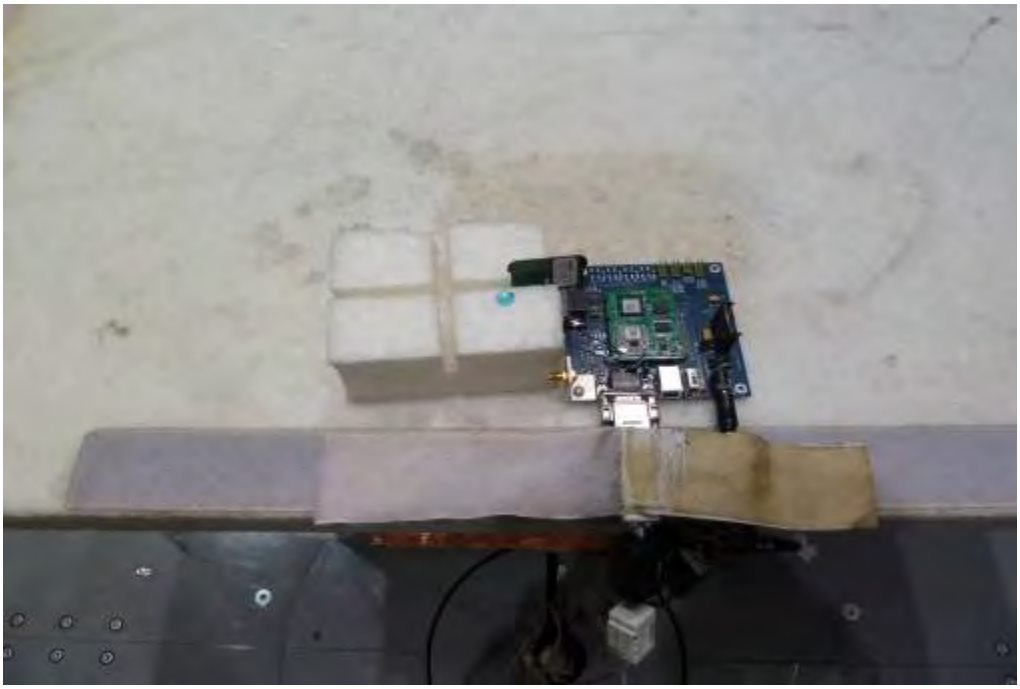


Photo 7: Ant 453564271931 (Chamber F)

Photo 8: Ant 453564271931 (Chamber F)

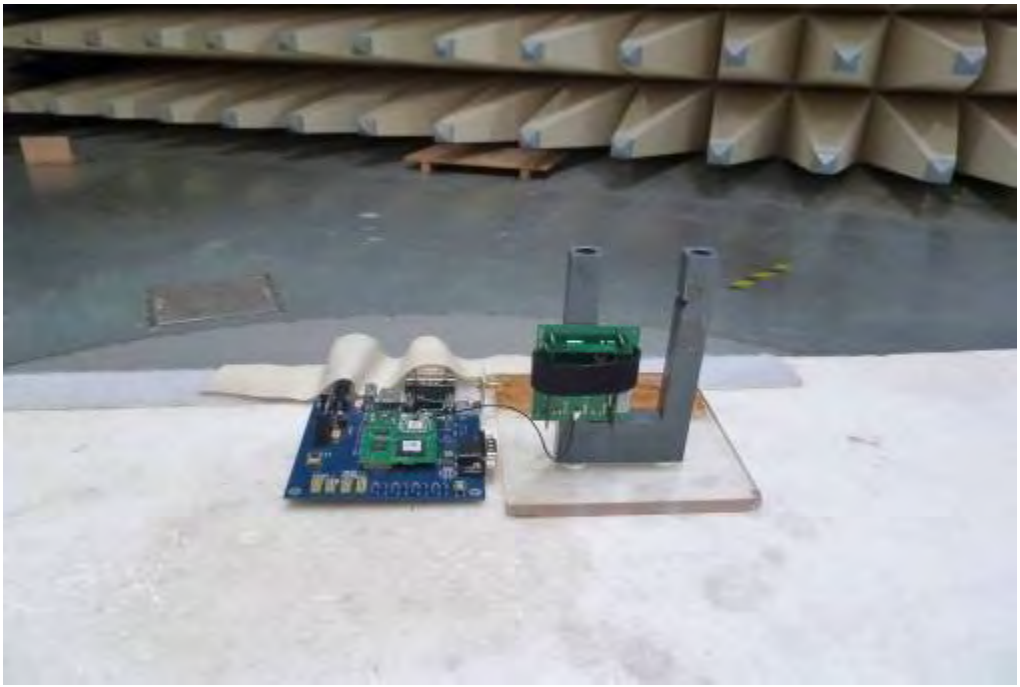


Photo 9: Ant M3002-66494 (Chamber C)

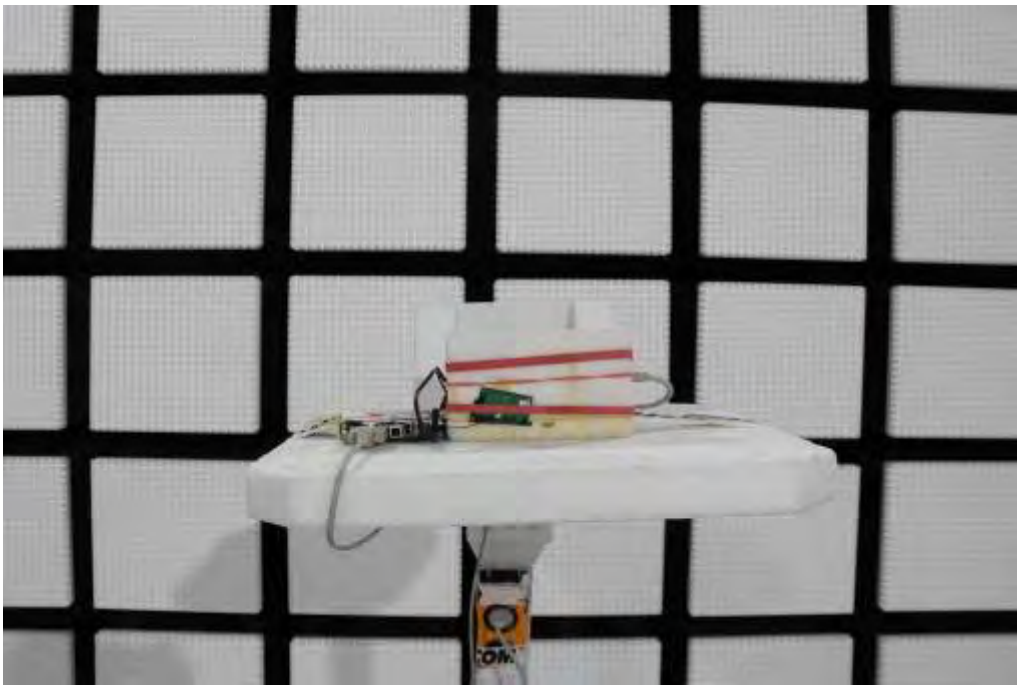


Photo 10: Ant 453564154611 (Chamber C)

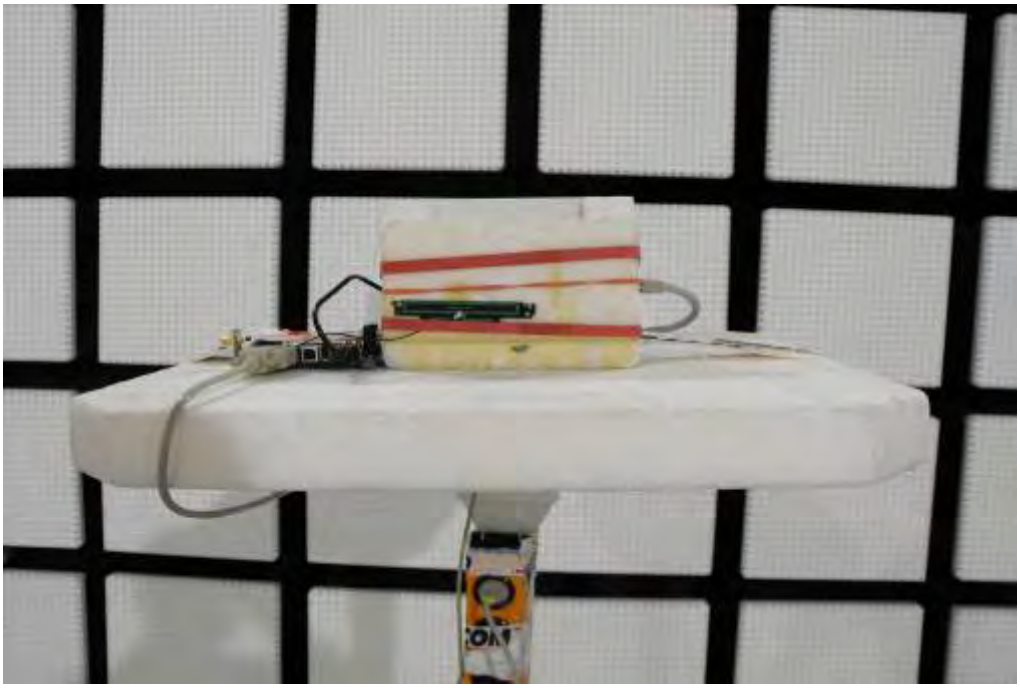


Photo 11: Ant 453564175981 (Chamber C)

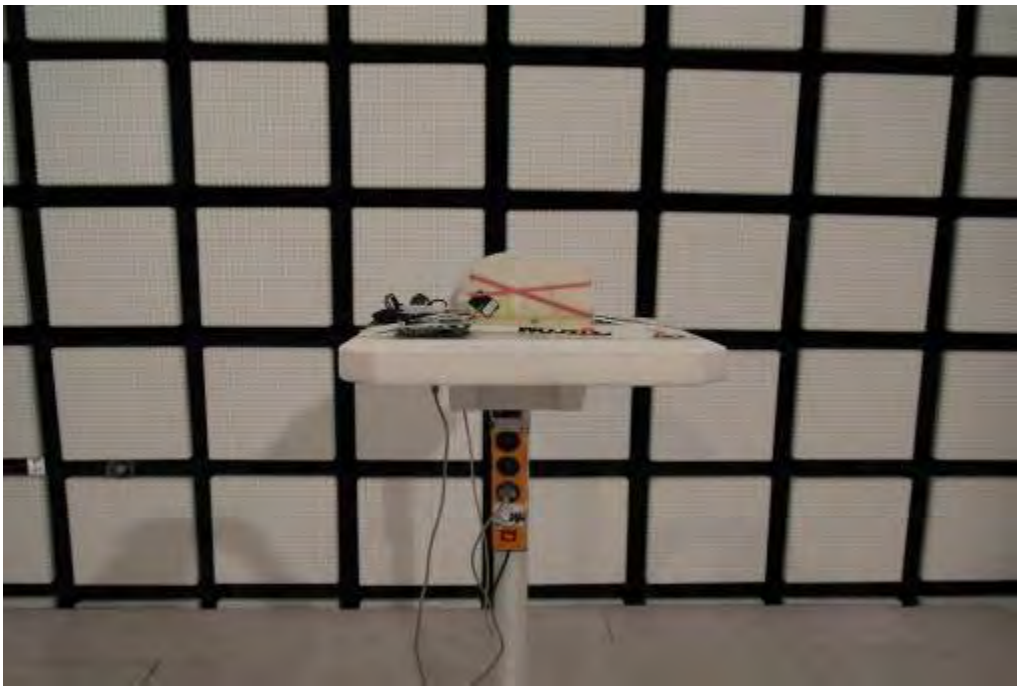


Photo 12: Ant 453564271931 (Chamber C)

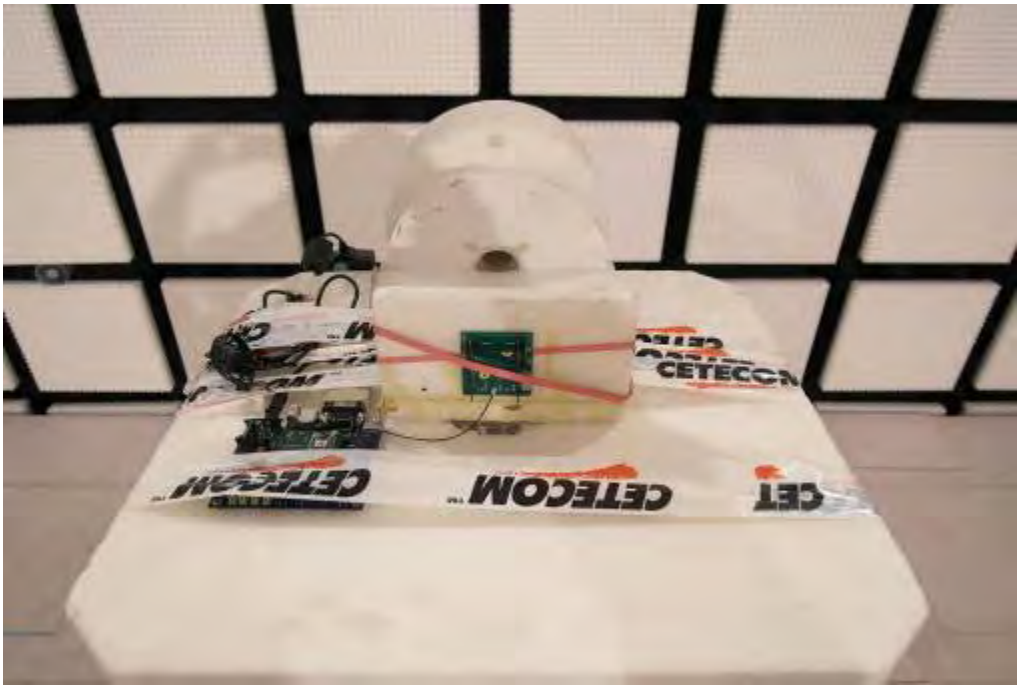
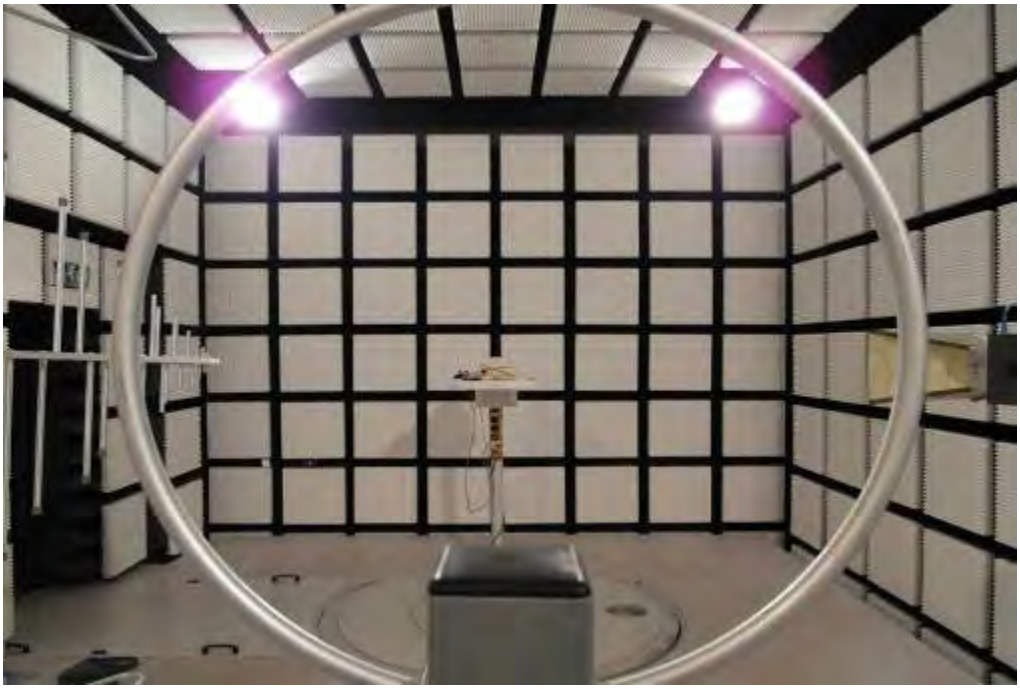


Photo 13: valid for all antenna types (Chamber C)

Photo 14: valid for all antenna types (Chamber C)



Annex B Photographs of the EUT

Photo documentation:

Photo 1: Interface board with test board and EUT

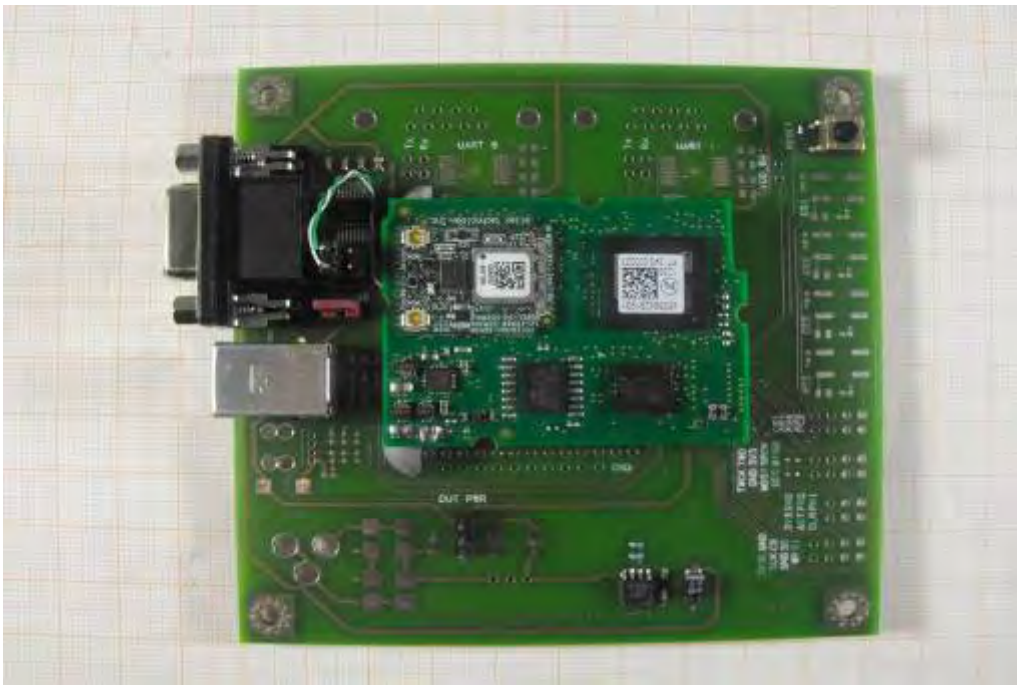


Photo 2: Interface board

Photo 3: Interface board

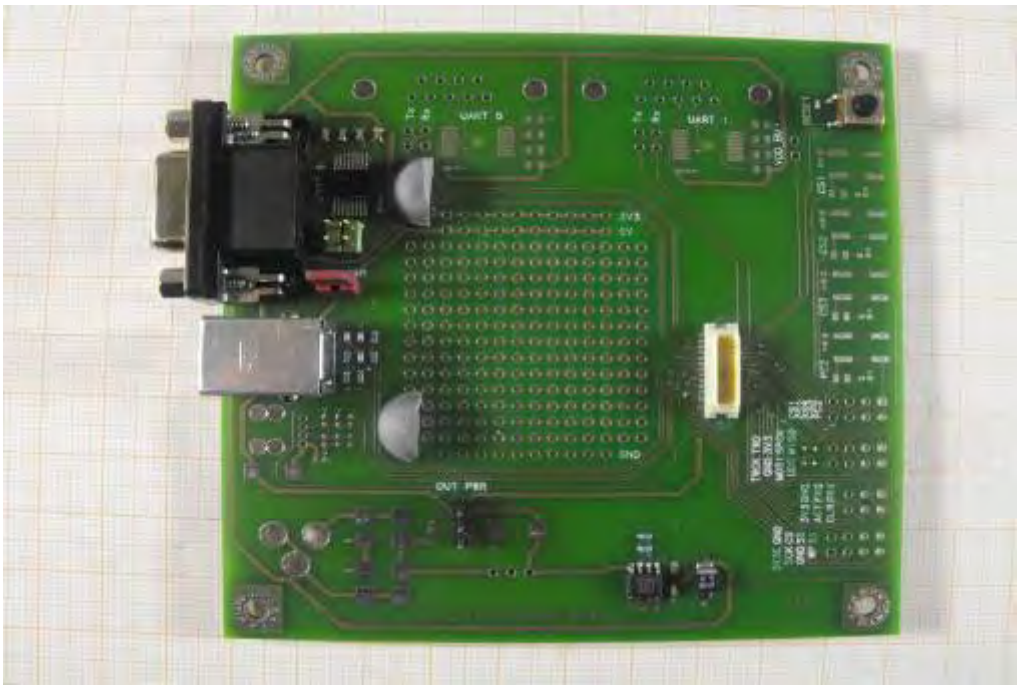


Photo 4: Testboard top view

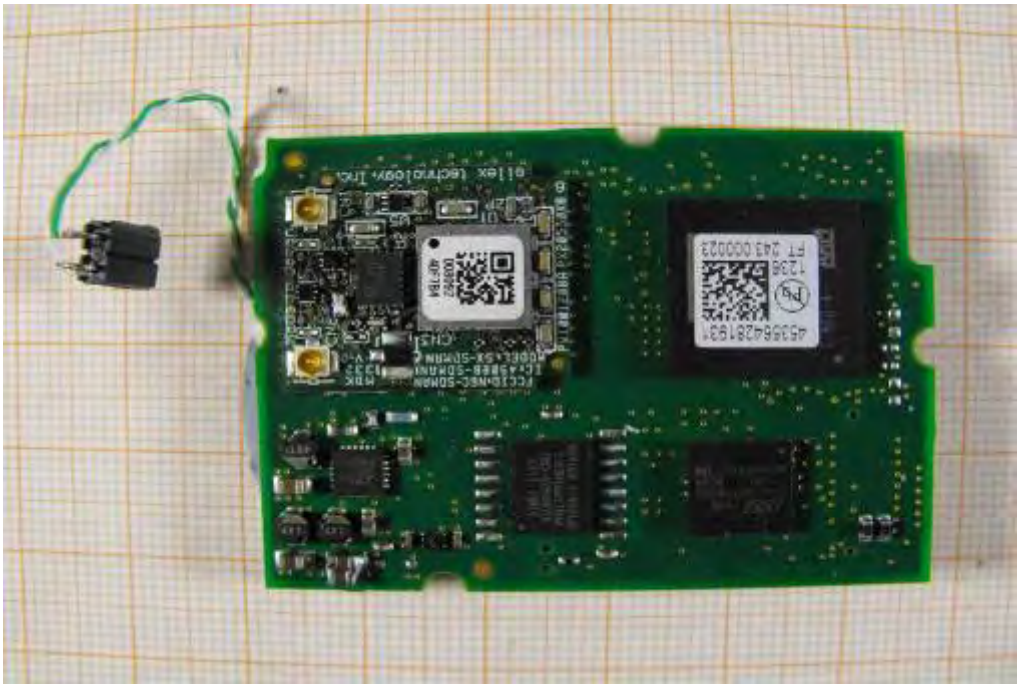


Photo 5: Testboard bottom view

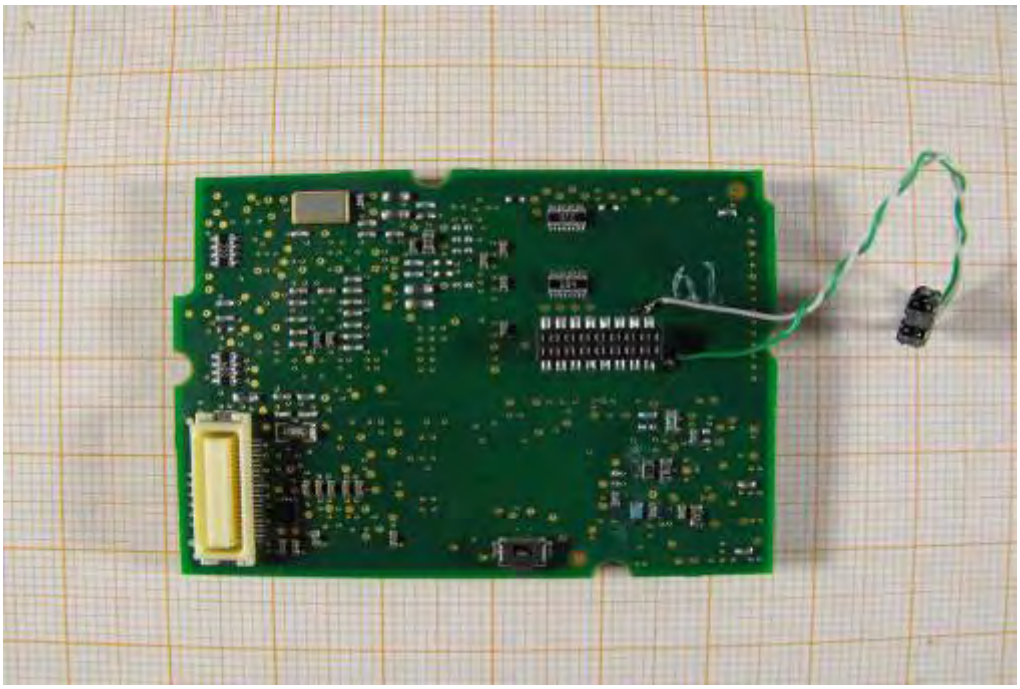


Photo 6: EUT

Photo 7: EUT with Ant M3002-66494

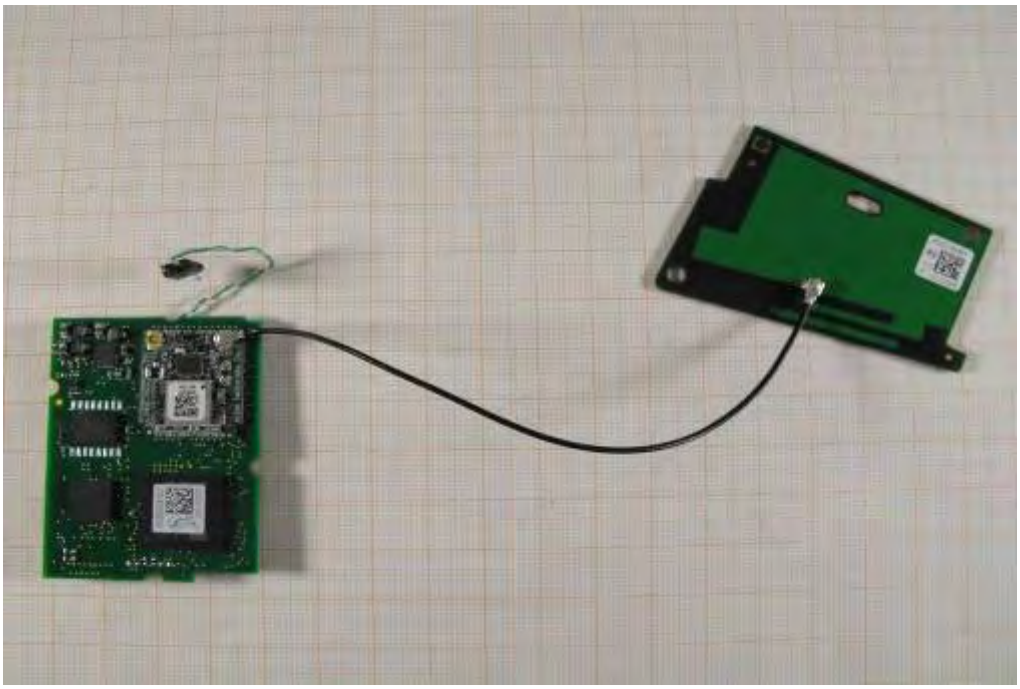


Photo 8: Ant M3002-66494

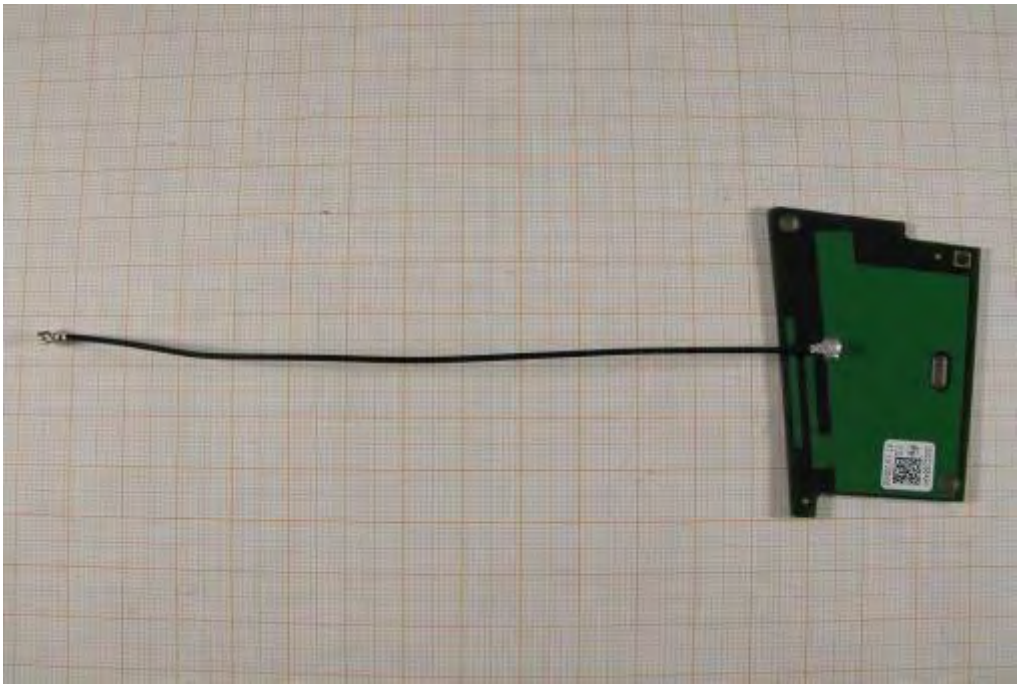


Photo 9: Ant M3002-66494

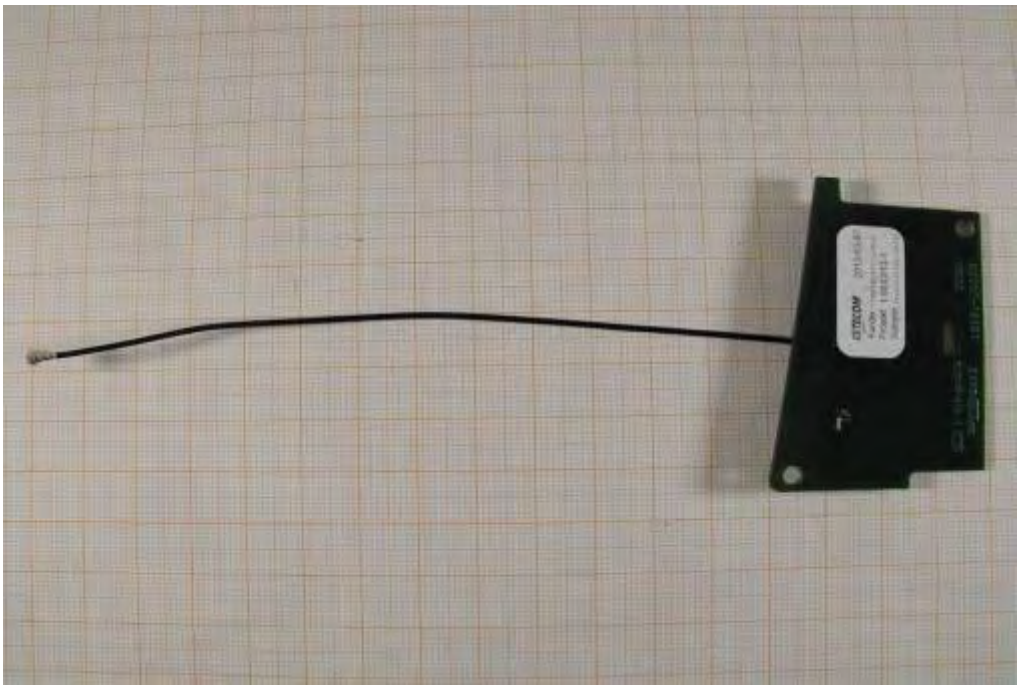


Photo 10: Ant M3002-66494

Photo 11: Ant M3002-66494

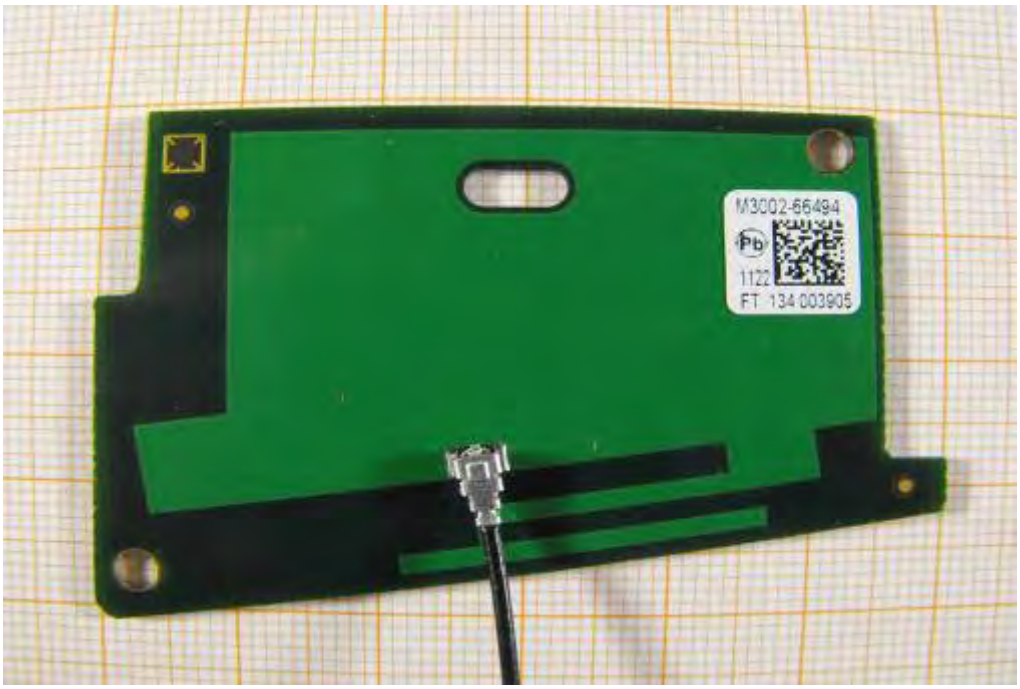


Photo 12: Ant 453564154611

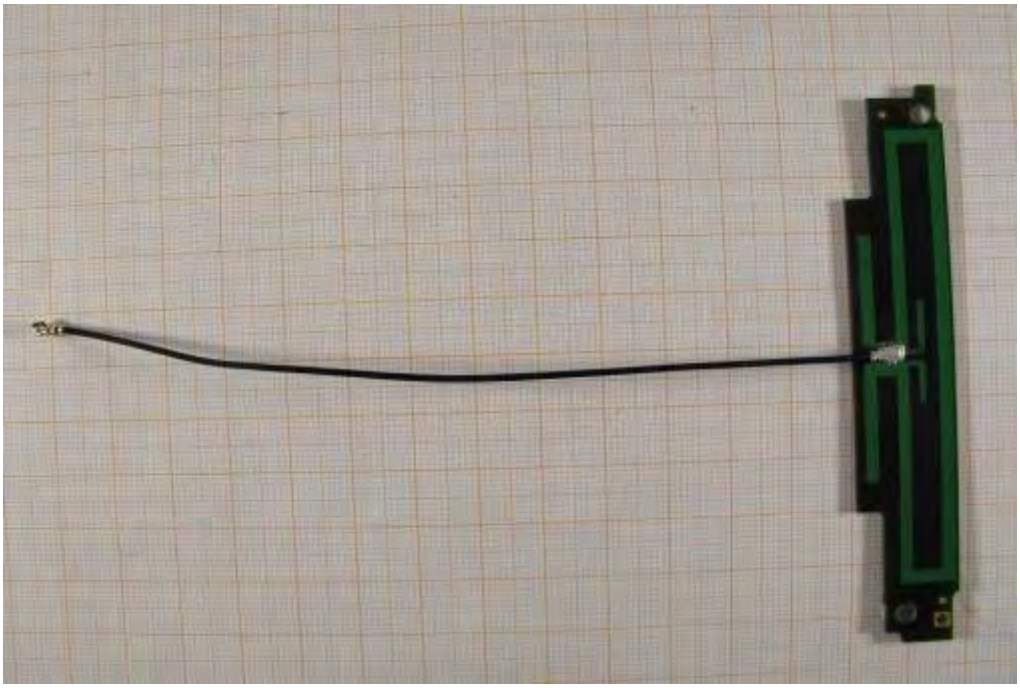


Photo 13: Ant 453564154611

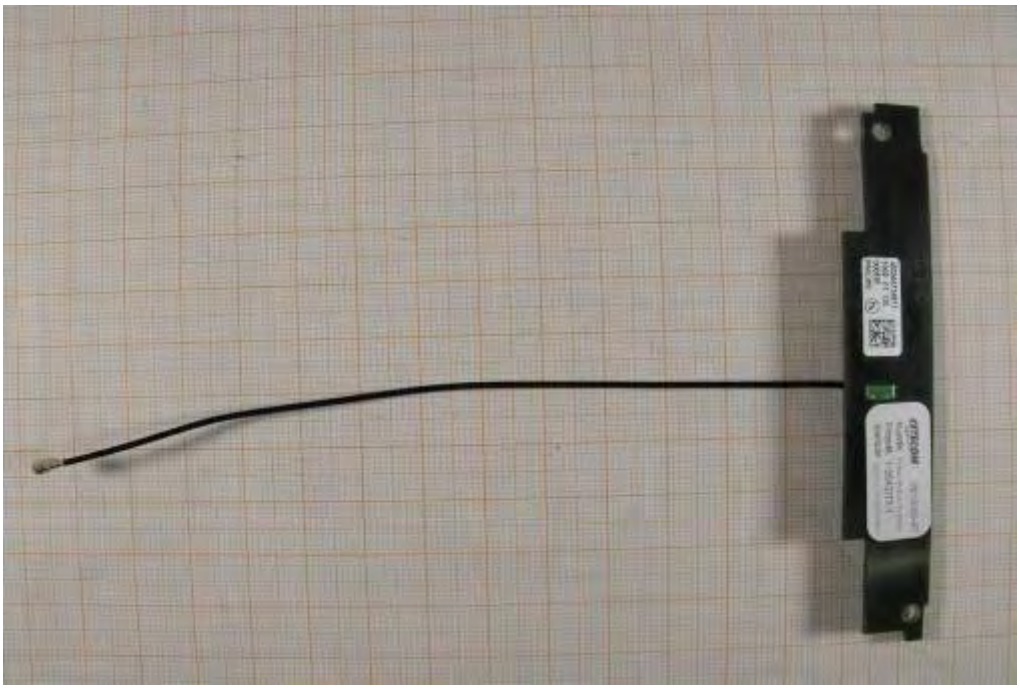


Photo 14: Ant 453564154611

Photo 15: Ant 453564154611

Photo 16: Ant 453564175981

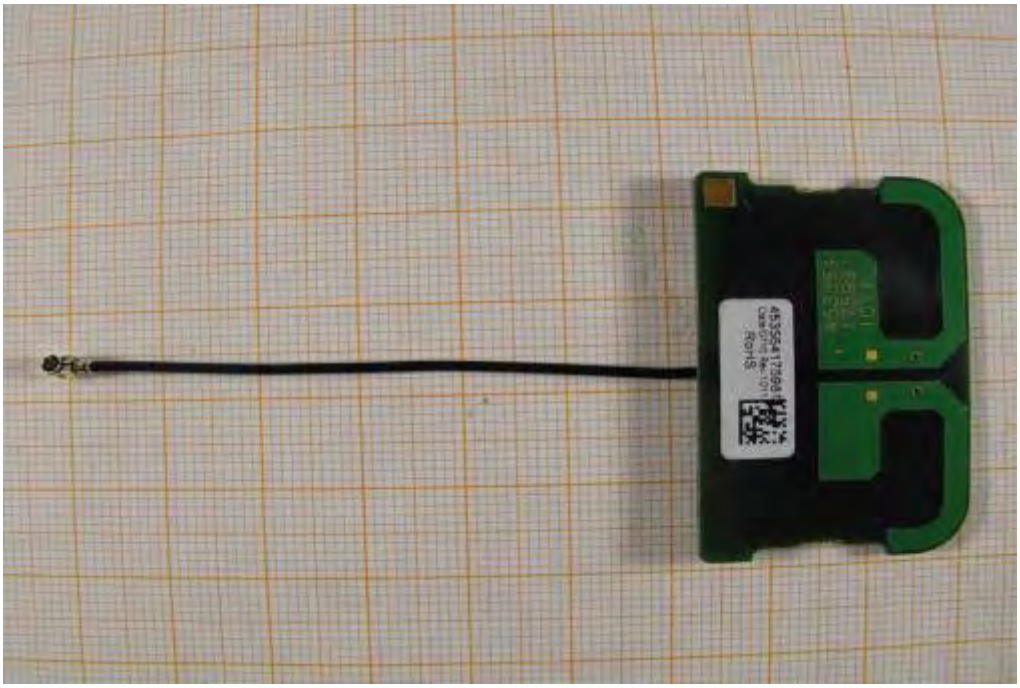


Photo 17: Ant 453564175981

Photo 18: Ant 453564175981

Photo 19: Ant 453564175981

Photo 20: Ant 453564271931

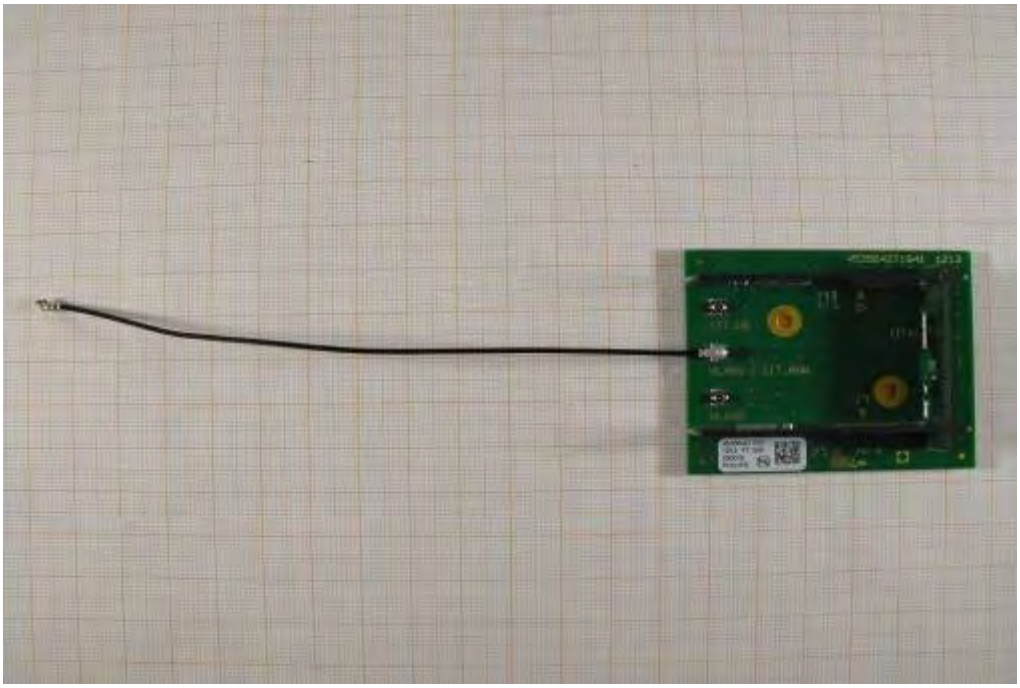


Photo 21: Ant 453564271931

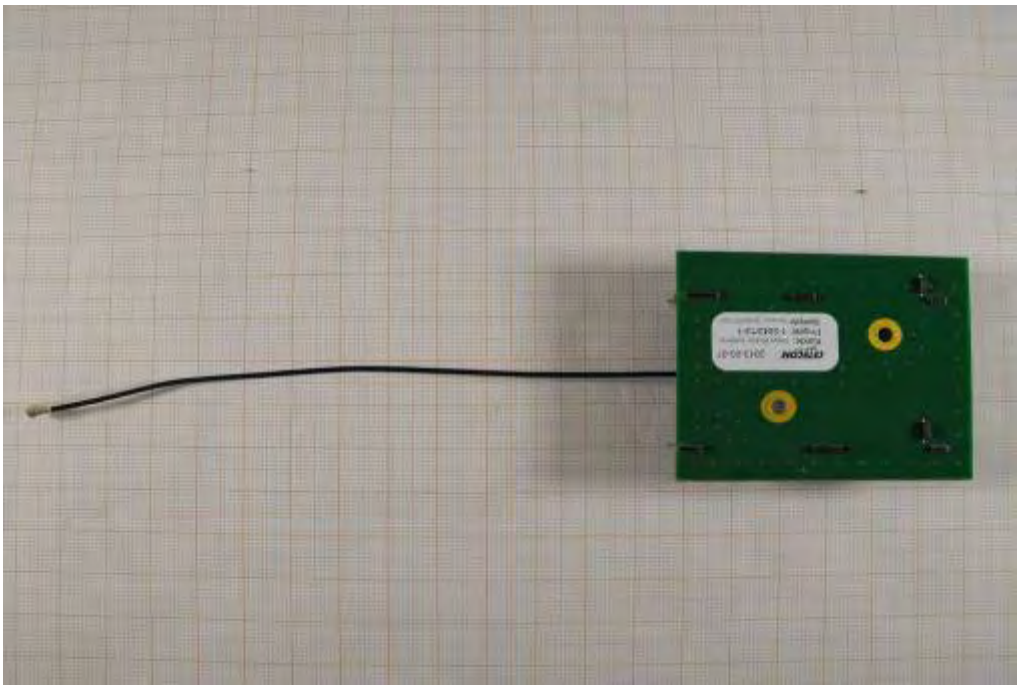


Photo 22: Ant 453564271931

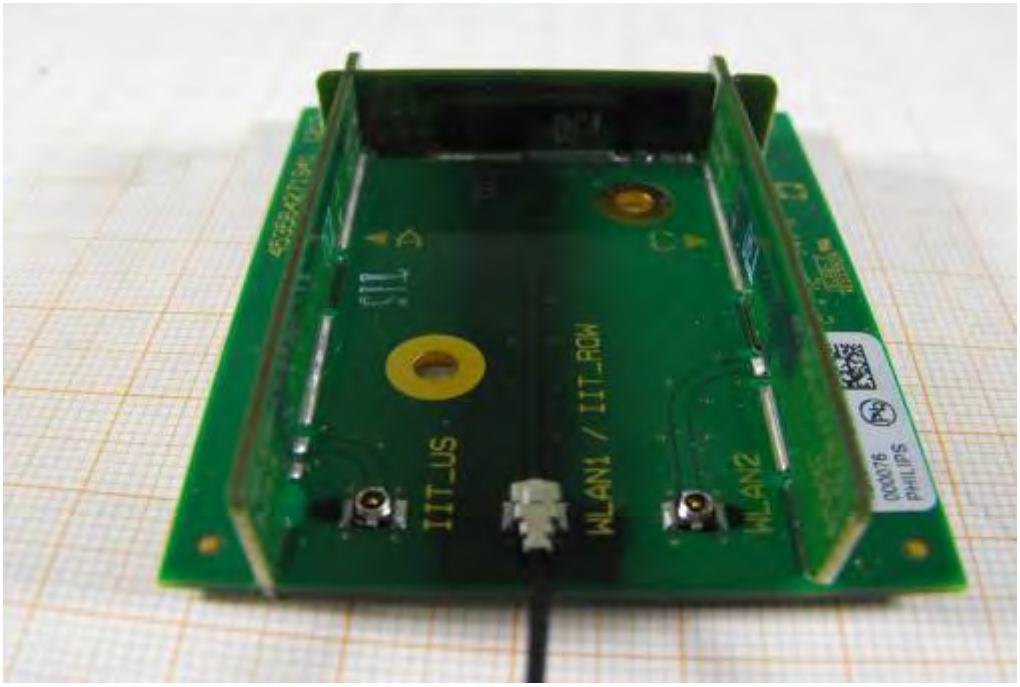


Photo 23: Ant 453564271931

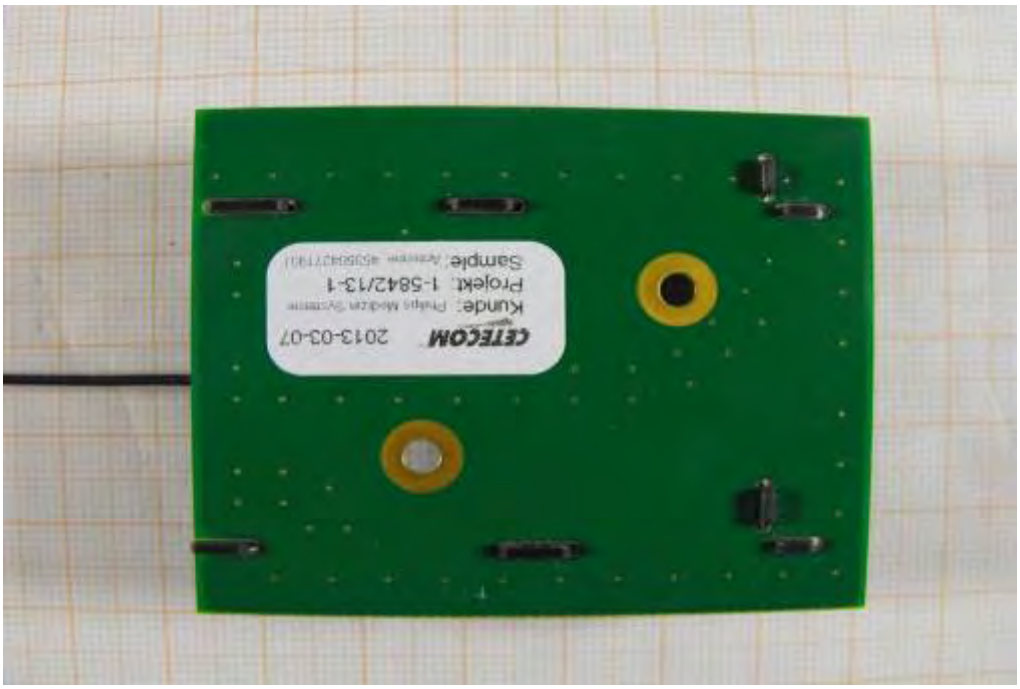
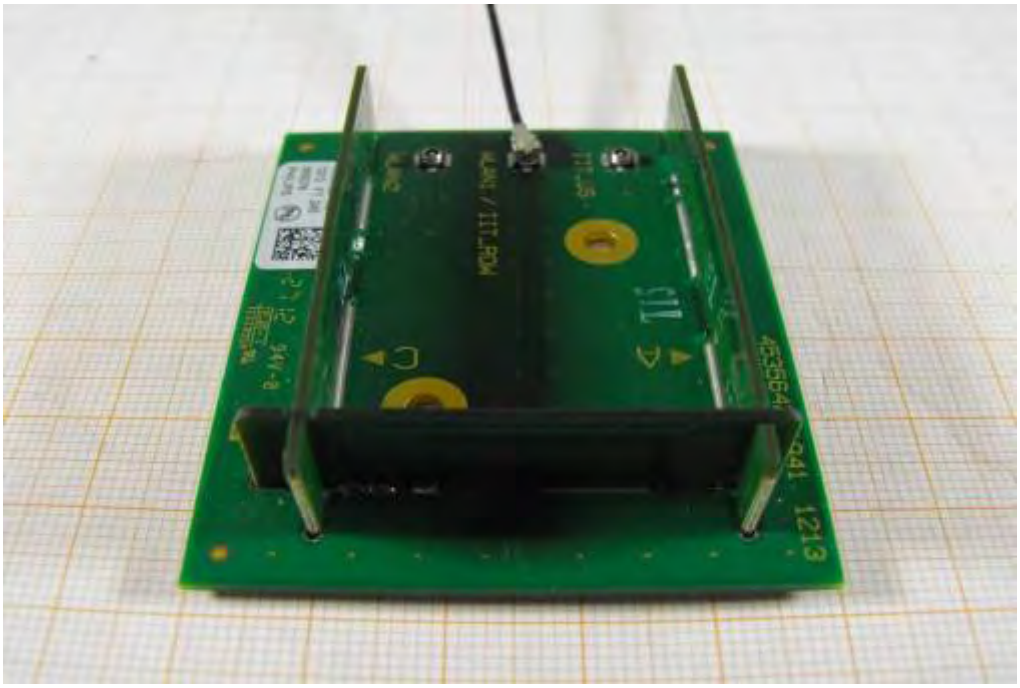


Photo 24: Ant 453564271931



Annex C Document history

Version	Applied changes	Date of release
1.0	Initial release	2013-08-06

Annex D 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 E Accreditation Certificate

Front side of certificate

DAkkS

Deutsche Akkreditierungsstelle GmbH

Akkreditierung

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

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

Back side of certificate

Deutsche Akkreditierungsstelle GmbH

Note:

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

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