Test Report

FINAS
Finnish Accreditation Service
T004 (EN ISO/IEC 17025)

INTENTIONAL RADIATOR TESTS ACCORDING TO FCC PART 15 C and INDUSTRY CANADA REQUIREMENTS

Equipment Under Test:	Diving computer with BT4.0 and LF communication capability
Marketing name:	EON
Model:	DW141
Manufacturer:	Suunto Oy Valimotie 7 01510 VANTAA FINLAND
Customer:	Suunto Oy Valimotie 7 01510 VANTAA FINLAND
FCC Rule Part:	15.247: 2013
IC Rule Part:	RSS-210, Issue 8, 2010 RSS-GEN Issue 3, 2010
KDB:	Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 (April 9, 2013)

Date:	1 July 2014	Date:	1 July 2014
Issued by:	Niko Kotsalo Test Engineer	Checked by:	Jari Merikari Technical Manager

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Equipment Under Test (EUT)

Diving computer with BT4.0 and LF communication capability

Marketing Name:	EON
Model:	DW141
HW version:	-
SW version:	-
FCC ID:	RYP21161
IC:	5175A-21161

Description of the EUT

The EUT is a diving computer with 123 kHz transceiver radio and Bluetooth 4.0 single mode transceiver radio. This report includes test results for Bluetooth 4.0 tests. EUT is battery operated and has an internal battery.

Classification of the device

Fixed device	☐
Mobile Device (Human body distance > 20cm)	☐
Portable Device (Human body distance < 20cm)	☒

Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing

Ratings and declarations

Operating Frequency Range (OFR):	2402 – 2480 MHz
Channels:	40
Channel separation:	2 MHz
Channel bandwidth:	1.186685962 MHz
Effective conducted power:	2.94 dBm
Transmission technique:	Digital Transmission
Modulation:	GFSK
Integral Antenna gain:	-2 dBm

Power Supply

Battery Operated

Operating voltage range	3.3 – 4,2VDC

Mechanical Size of the EUT

Height: 6.0 cm	Width:10.5 cm	Depth: 2.4 cm

Samples

Two samples were used in the tests. One normal sample with an integral antenna for radiated emissions and one sample with antenna removed and replaced with a coaxial cable with SMA-connector for conducted RF tests. During the tests the EUT was set into continuous transmit and hopping was stopped into the channel under test. Normal test modulation and maximum transmit power was used in all tests. No modifications were done during the tests.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This document cannot be reproduced except in full, without prior approval of the Company.

SUMMARY OF TESTING

Test Specification	Description of Test	Result
§15.247(b)(3) / RSS-210 A8.4	Maximum Peak Conducted Output Power	PASS
§15.247(a)(2) / RSS-210 A8.2	6 dB Bandwidth	PASS
§15.247(e) / RSS-210 A8.2	Power Spectral Density	PASS
RSS-GEN 4.6.1	99% Occupied Bandwidth	PASS
§15.247(d) / RSS-210 A8.5	100 kHz Bandwidth of Frequency Band Edges and Conducted Spurious Emissions	PASS
§15.209(a), §15.247(d) / RSS-210 A8.5	Radiated Emissions Within The Restricted Bands	PASS
§15.109 / RSS-GEN 7.2.3.2	Unintentional Radiated Emissions	PASS

EUT Test Conditions During Testing

The EUT was in continuous transmit mode during all the tests. The hopping was stopped and the EUT was configured into the wanted channel. Normal modulation and duty cycle was applied in all the tests. Duty cycle of the EUT was measured and it was 96.2% which is the highest possible duty cycle that the EUT is capable of.
The tests were performed with the EUT being in three different orthogonal positions: X, Y, Z.

Following channels were used during the tests when the hopping was stopped:
Channel Low (Ch 0) = 2402 MHz
Channel Mid (Ch 20) = 2440 MHz
Channel High (Ch 39) = 2480 MHz

Test Facility

☐	Testing Location / address: FCC registration number: **90598**	SGS Fimko Ltd Särkiniementie 3 FI-00210, HELSINKI FINLAND
☒	Testing Location / address: FCC registration number: **178986** Industry Canada registration number: **8708A-2**	SGS Fimko Ltd Karakaarenkuja 4 FI-02610, ESPOO FINLAND

Maximum Peak Conducted Output Power

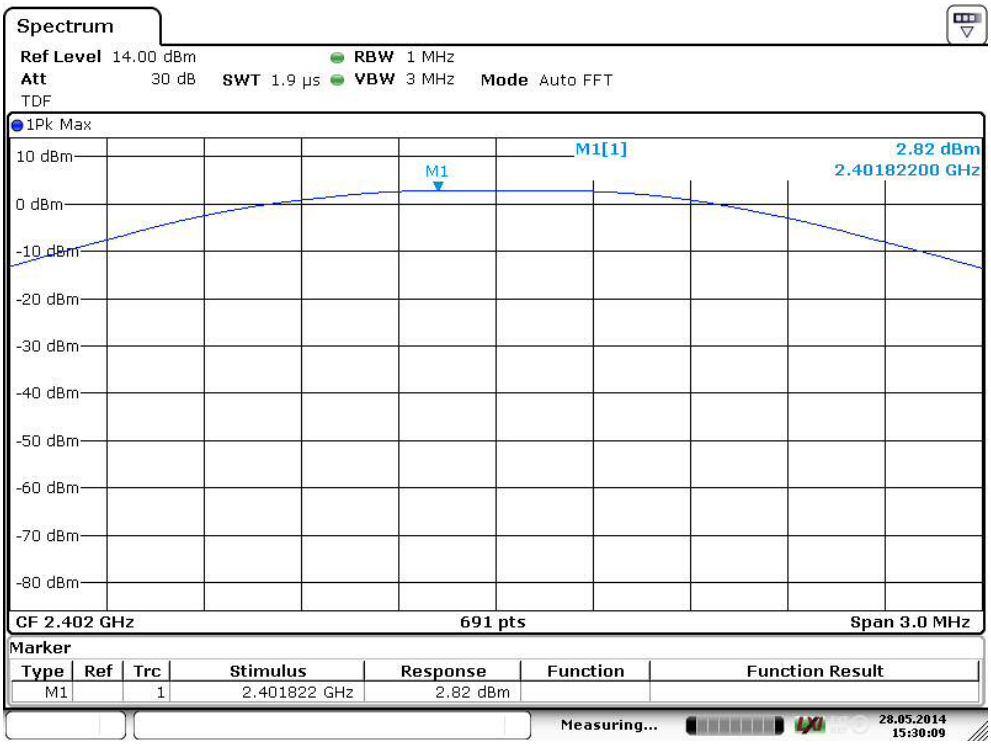
Standard:	ANSI C63.10	(2009)
Tested by:	NKO	
Date:	28.5.2014	
Humidity:	27%	
Temperature:	25.3 °C	
Measurement uncertainty	± 2,87dB	Level of confidence 95 % (k = 2)

FCC Rule: 15.247(b)(3)

For systems using digital modulation in the 2400-2483.5 MHz bands the limit is 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power.

Results:

Channel	Conducted Power [dBm]	Limit [dBm]	Margin [dBm]	Result
Low	2.82	30	27.18	PASS
Mid	2.94	30	27.06	PASS
High	2.85	30	27.15	PASS



Date: 28.MAY.2014 15:30:09

Figure 1. Channel Low.

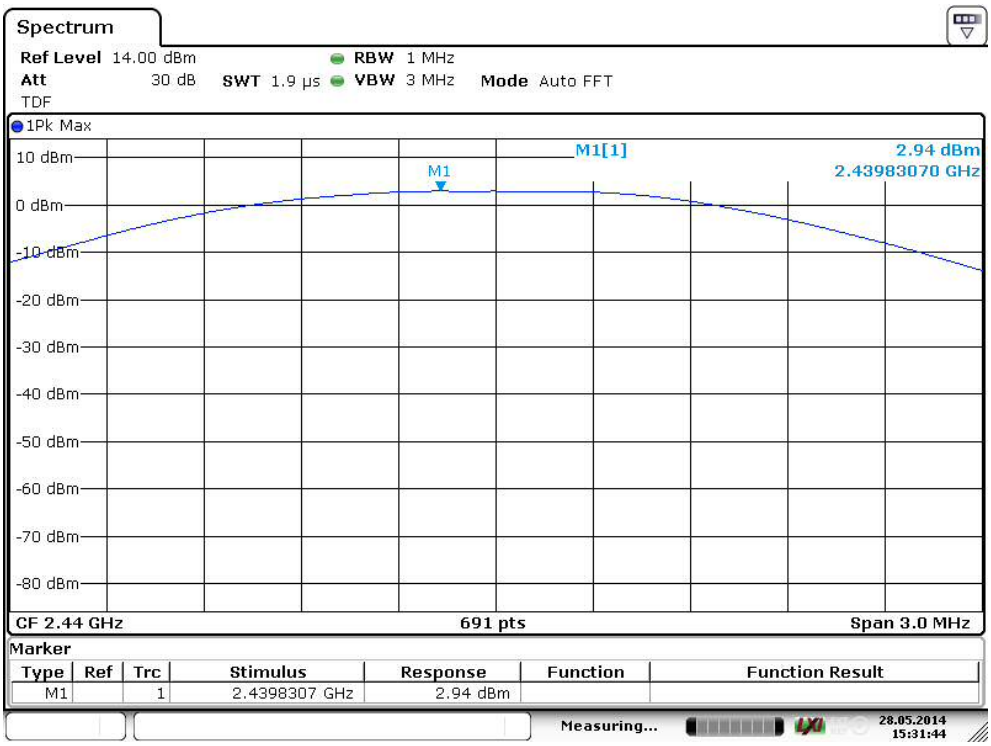


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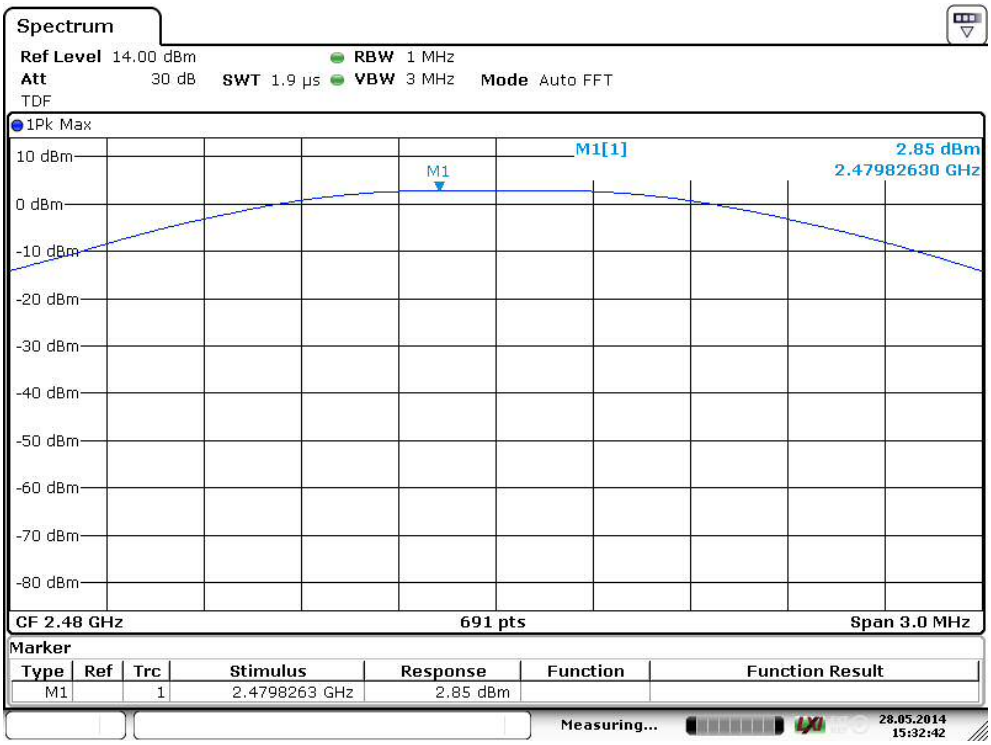
Figure 2. Channel Mid.



Date: 28.MAY.2014 15:32:42

Figure 3. Channel High.

Transmitter Radiated Spurious Emissions 30 – 1000 MHz

Standard:	ANSI C63.10	(2009)
Tested by:	NKO	
Date:	19.5. – 20.5.2014	
Humidity:	46.6 - 47.7 %	
Temperature:	25 – 25.6 °C	
Measurement uncertainty	± 4.51 dB	Level of confidence 95 % (k = 2)

FCC Rule: 15.247(d), 15.209(a)

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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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)**.**

The correction factor in the final result table contains the sum of the transducers (antenna + amplifier + cables).

The QuasiPeak value is the measured value corrected with the correction factor.

Measured Peak Values In The Frequency Range 30 MHz - 1000 MHz.

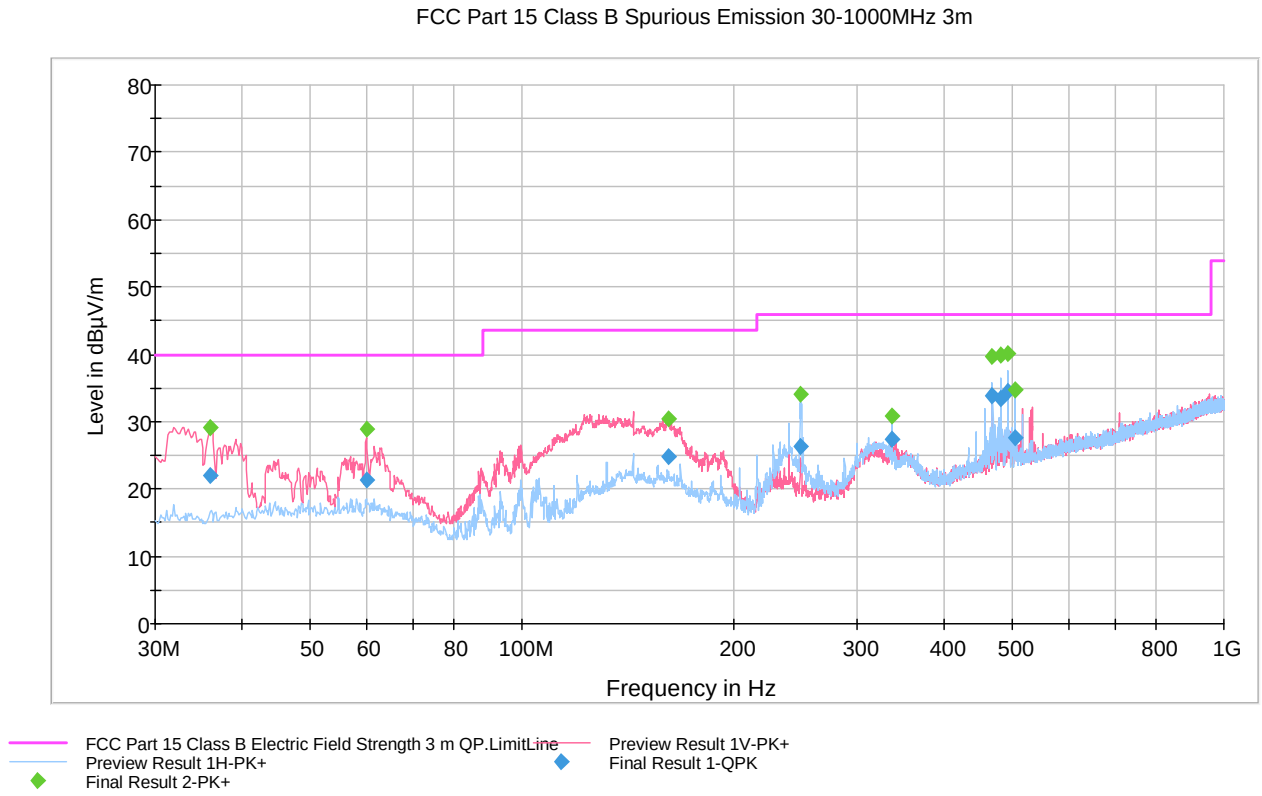


Figure 4. Measured curve with peak-detector. Channel Low.

Final measurements from the worst frequencies

Table 1. Final results.

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
35.945000	22.0	1000.0	120.000	116.0	V	68.0	18.0	40.0	
60.015000	21.4	1000.0	120.000	110.0	V	105.0	18.6	40.0	
161.485000	24.8	1000.0	120.000	100.0	V	238.0	18.7	43.5	
249.805000	26.3	1000.0	120.000	158.0	H	234.0	19.7	46.0	
335.975000	27.3	1000.0	120.000	100.0	H	1.0	18.7	46.0	
468.015000	33.9	1000.0	120.000	197.0	H	272.0	12.1	46.0	
479.935000	33.3	1000.0	120.000	199.0	H	280.0	12.7	46.0	
491.975000	34.5	1000.0	120.000	182.0	H	288.0	11.5	46.0	
503.925000	27.5	1000.0	120.000	100.0	V	315.0	18.5	46.0	

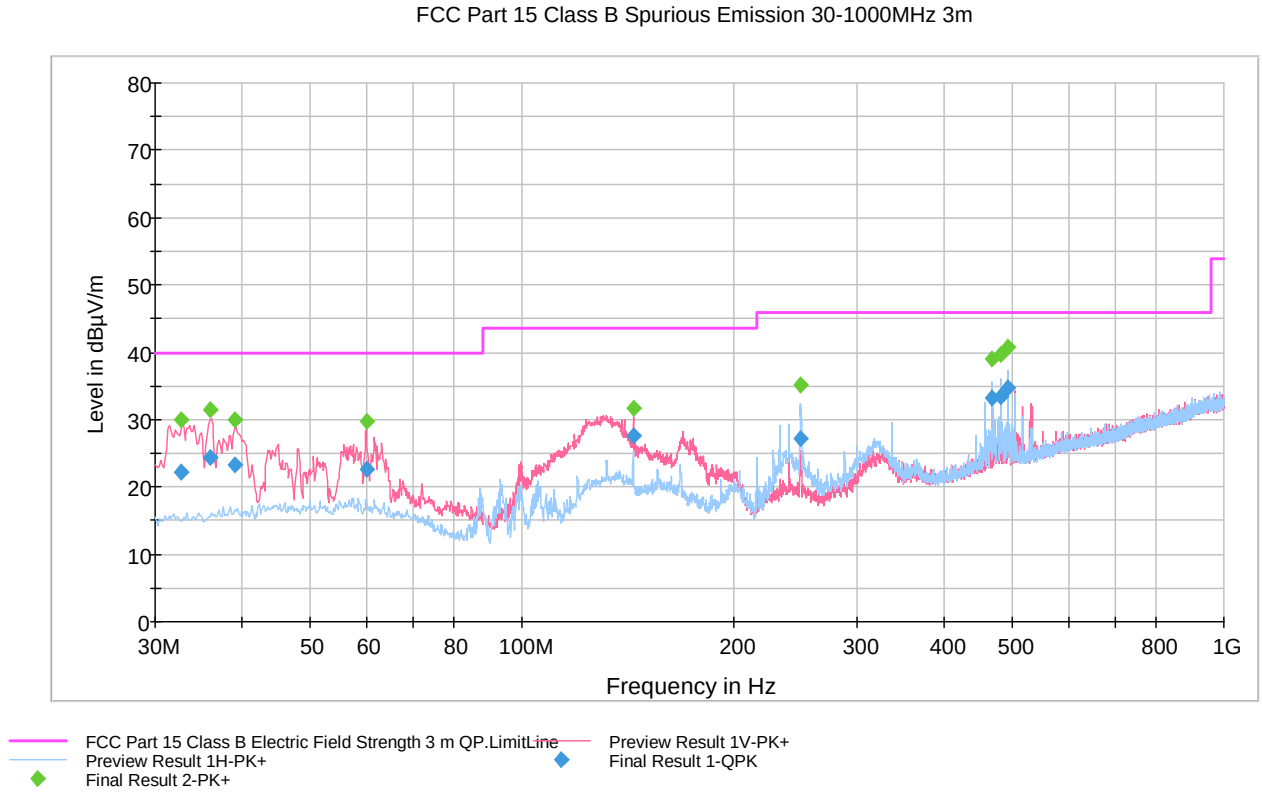


Figure 5. Measured curve with peak-detector. Channel Mid.

Final measurements from the worst frequencies

Table 2. Final results.

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
32.635000	22.2	1000.0	120.000	100.0	V	59.0	17.8	40.0	
36.015000	24.3	1000.0	120.000	100.0	V	20.0	15.7	40.0	
39.055000	23.3	1000.0	120.000	100.0	V	51.0	16.7	40.0	
60.055000	22.7	1000.0	120.000	100.0	V	104.0	17.3	40.0	
144.025000	27.6	1000.0	120.000	100.0	V	20.0	15.9	43.5	
248.925000	27.1	1000.0	120.000	121.0	H	238.0	18.9	46.0	
467.975000	33.2	1000.0	120.000	193.0	H	283.0	12.8	46.0	
479.975000	33.5	1000.0	120.000	199.0	H	280.0	12.5	46.0	
491.945000	34.8	1000.0	120.000	177.0	H	272.0	11.2	46.0	

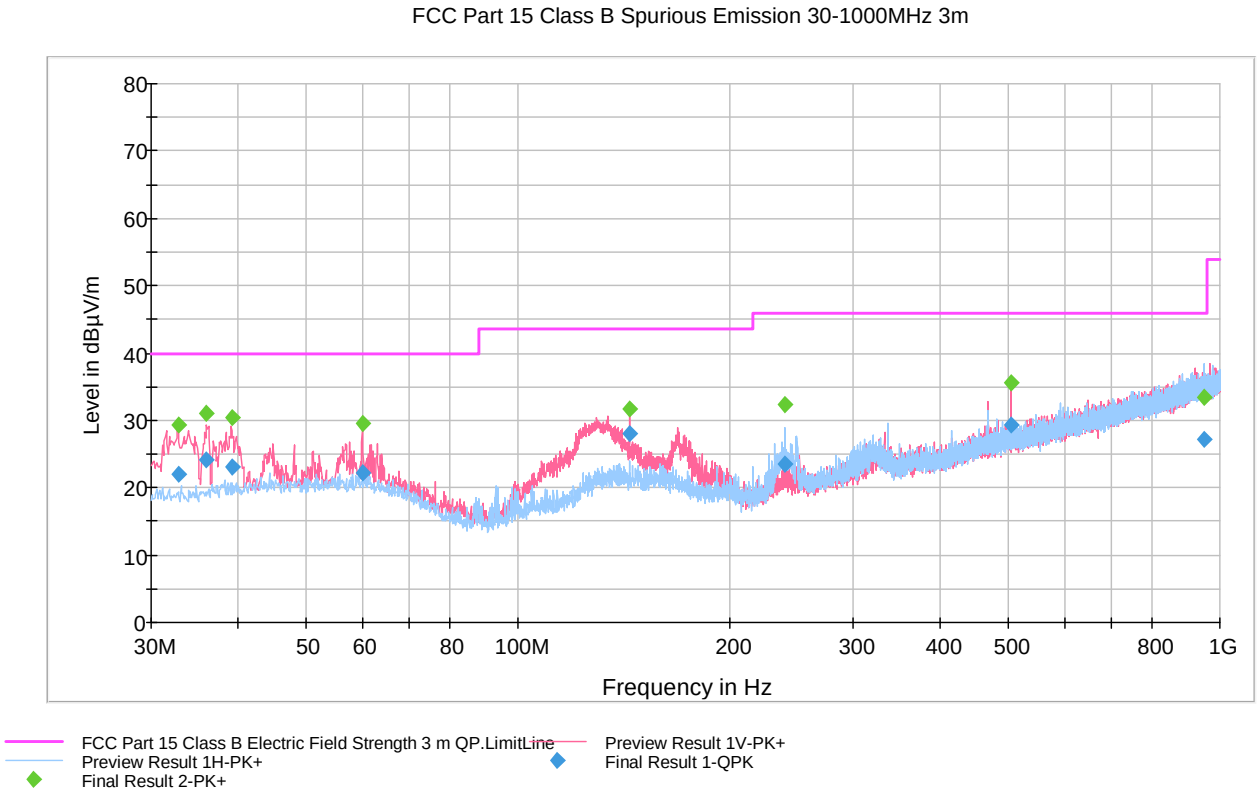


Figure 6. Measured curve with peak-detector. Channel High.

Final measurements from the worst frequencies

Table 3. Final results.

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
32.836000	22.0	1000.0	120.000	100.0	V	111.0	14.2	18.0	40.0	
36.014000	24.0	1000.0	120.000	100.0	V	-2.0	14.5	16.0	40.0	
39.081000	23.1	1000.0	120.000	100.0	V	91.0	14.7	16.9	40.0	
60.013000	22.2	1000.0	120.000	122.0	V	169.0	14.8	17.8	40.0	
143.995000	28.0	1000.0	120.000	100.0	V	4.0	14.5	15.5	43.5	
240.065000	23.4	1000.0	120.000	128.0	H	238.0	13.9	22.6	46.0	
503.999000	29.3	1000.0	120.000	100.0	V	322.0	20.9	16.7	46.0	
947.754000	27.3	1000.0	120.000	152.0	H	308.0	28.2	18.7	46.0	

Transmitter Radiated Spurious Emissions 1 000 – 26 500 MHz

Measured Peak and Average Values In The Frequency Range 1 000 MHz – 4 000 MHz.

The correction factor in the final result tables contains the sum of the transducers (antenna + amplifier + cables). The Max Peak and Average values are measured values corrected with the correction factor.

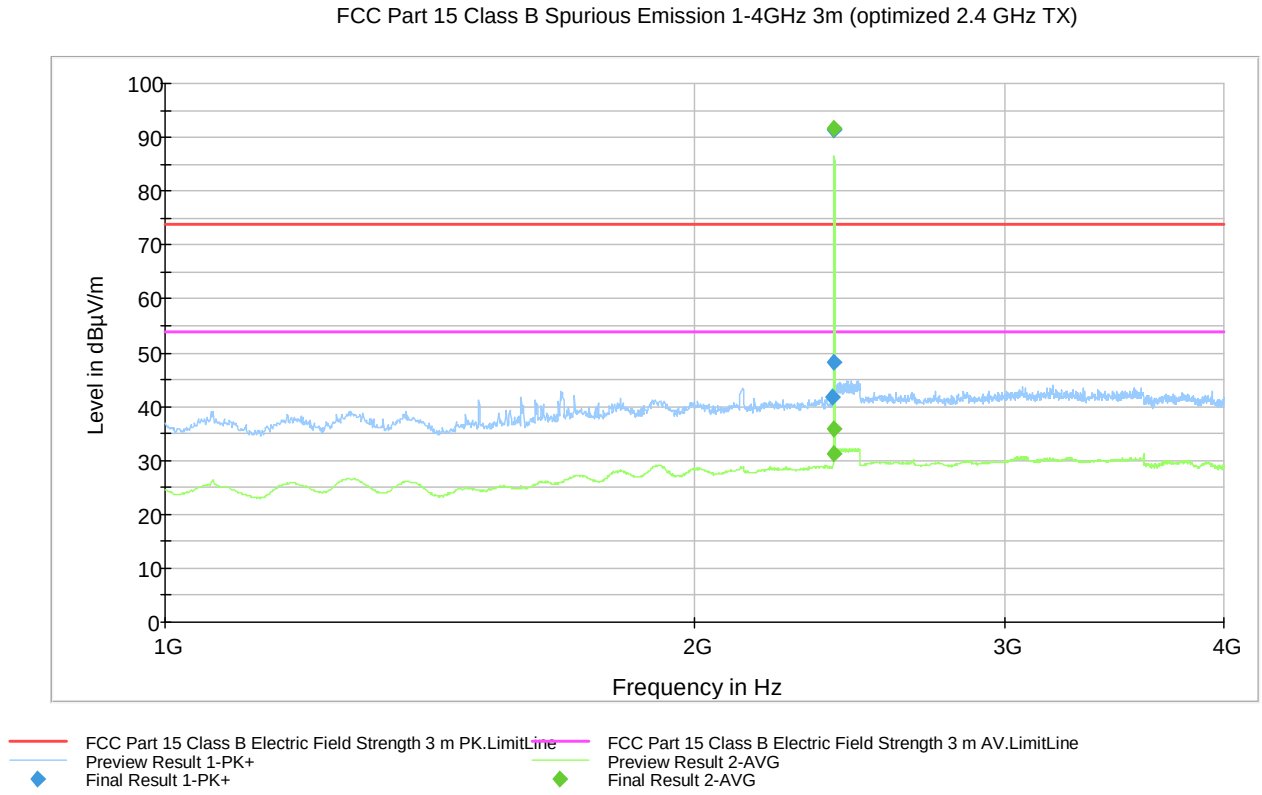


Figure 7. Measured curve with peak- and average detector. Channel Low.

Final measurements from the worst frequencies

Table 4. Final Max Peak results.

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
2396.600000	41.7	1000.0	1000.000	277.0	V	0.0	32.2	73.9	
2400.000000	48.2	1000.0	1000.000	228.0	H	37.0	25.7	73.9	
2402.000000	91.5	1000.0	1000.000	225.0	H	36.0	-17.6	73.9	Carrier

Table 5. Final Average results.

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
2400.000000	35.9	1000.0	1000.000	228.0	H	38.0	18.0	53.9	
2400.000000	31.2	1000.0	1000.000	210.0	V	0.0	22.7	53.9	
2402.000000	91.5	1000.0	1000.000	226.0	H	36.0	-37.6	53.9	Carrier

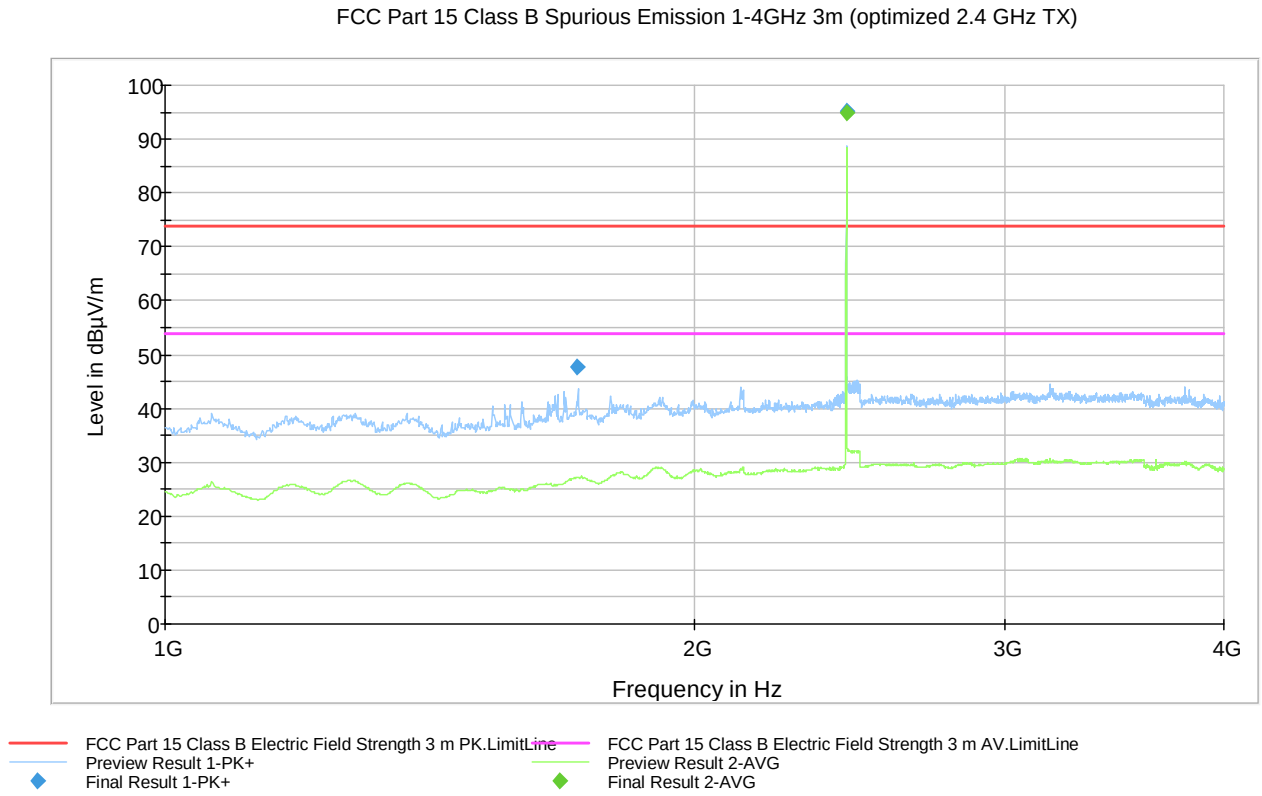


Figure 8. Measured curve with peak- and average detector. Channel Mid.

Final measurements from the worst frequencies

Table 6. Final Max Peak results.

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
1715.475000	47.7	1000.0	1000.000	138.0	V	315.0	26.2	73.9	
2440.000000	95.2	1000.0	1000.000	187.0	H	19.0	-21.3	73.9	Carrier

Table 7. Final Average results.

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
2440.000000	95.0	1000.0	1000.000	186.0	H	19.0	-41.1	53.9	Carrier

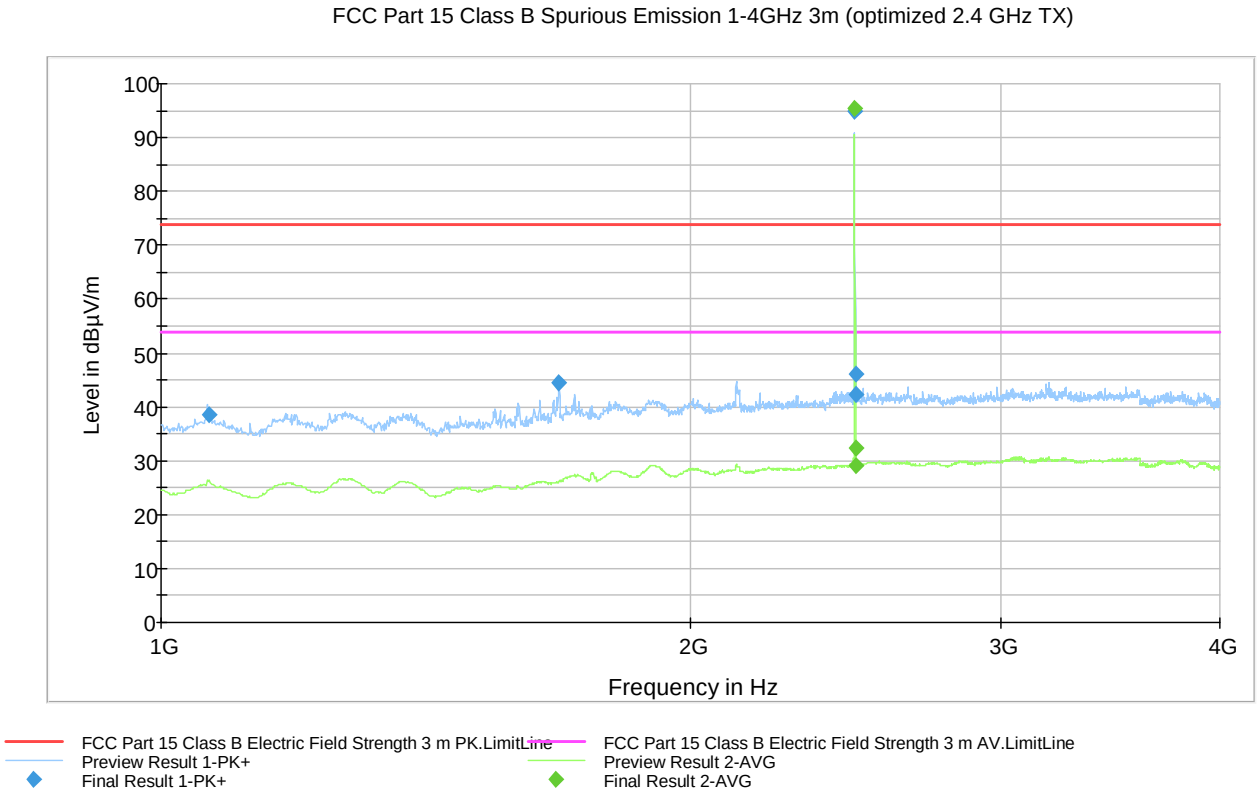


Figure 9. Measured curve with peak- and average detector. Channel HIGH.

Final measurements from the worst frequencies

Table 8. Final Max Peak results.

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
1065.675000	38.7	1000.0	1000.000	400.0	V	301.0	35.2	73.9	
1682.325000	44.5	1000.0	1000.000	122.0	V	319.0	29.4	73.9	
2480.000000	94.8	1000.0	1000.000	210.0	H	163.0	-20.9	73.9	Carrier
2483.700000	42.3	1000.0	1000.000	180.0	V	211.0	31.6	73.9	
2484.100000	46.1	1000.0	1000.000	267.0	H	182.0	27.8	73.9	

Table 9. Final Average results.

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
2480.000000	95.4	1000.0	1000.000	215.0	H	164.0	-41.5	53.9	Carrier
2483.500000	32.3	1000.0	1000.000	210.0	H	163.0	21.6	53.9	
2483.500000	29.1	1000.0	1000.000	130.0	V	199.0	24.8	53.9	

Measured Peak and Average Values In The Frequency Range 4 000 MHz – 18 000 MHz.

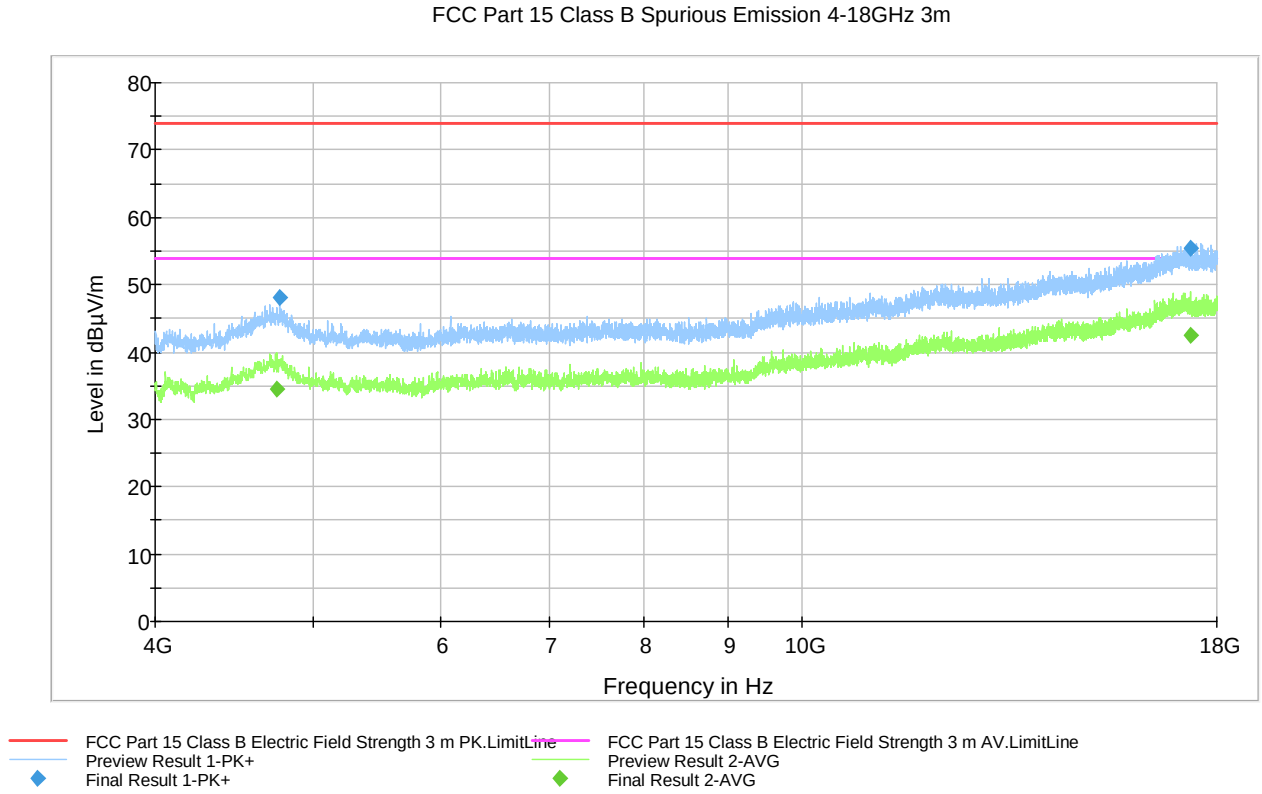


Figure 10. Measured curve with peak- and average detector. Channel Low.

Final measurements from the worst frequencies

Table 10. Final Max Peak results.

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
4774.800000	48.2	1000.0	1000.000	130.0	V	322.0	25.7	73.9	
17334.800000	55.4	1000.0	1000.000	216.0	H	89.0	18.5	73.9	

Table 11. Final Average results.

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
4753.000000	34.6	1000.0	1000.000	100.0	V	237.0	19.3	53.9	
17348.200000	42.4	1000.0	1000.000	100.0	H	235.0	11.5	53.9	

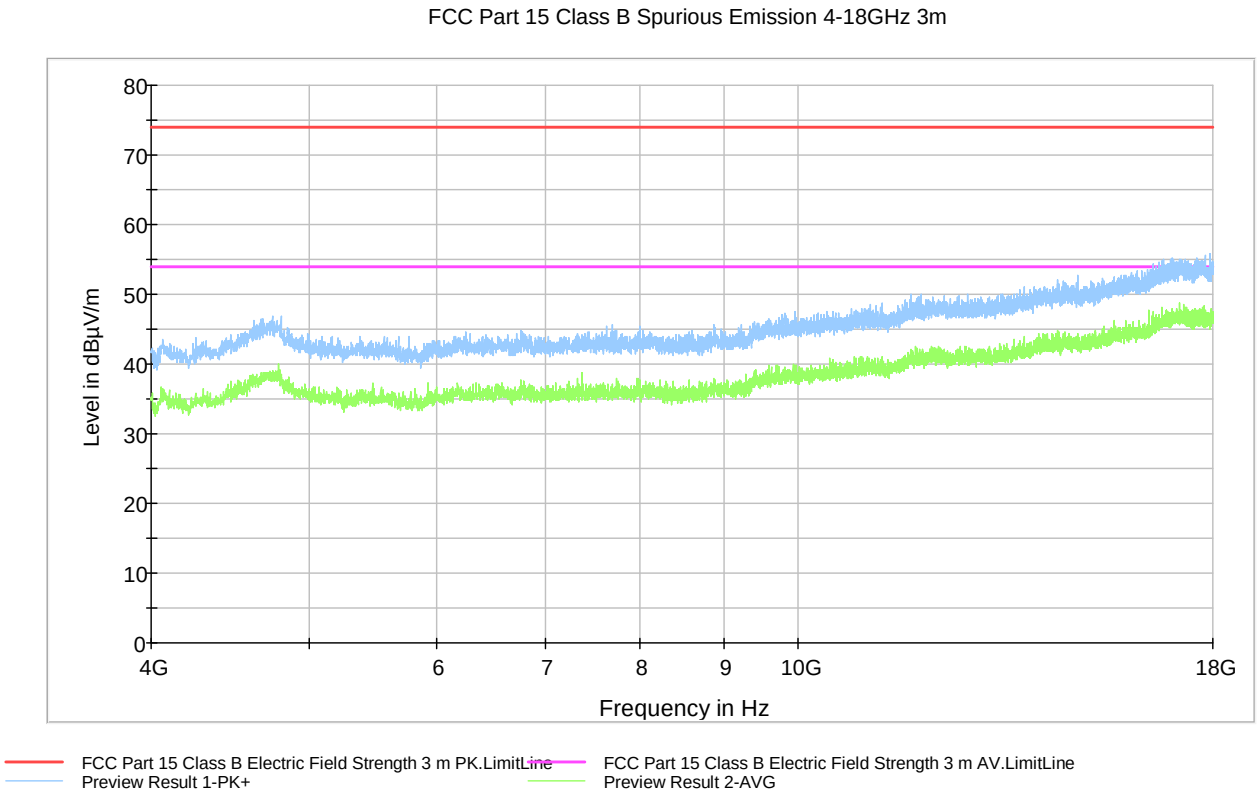


Figure 11. Measured curve with peak- and average detector. Channel Mid.

Final measurements from the worst frequencies

Due to the low emission level no final measurements were made.

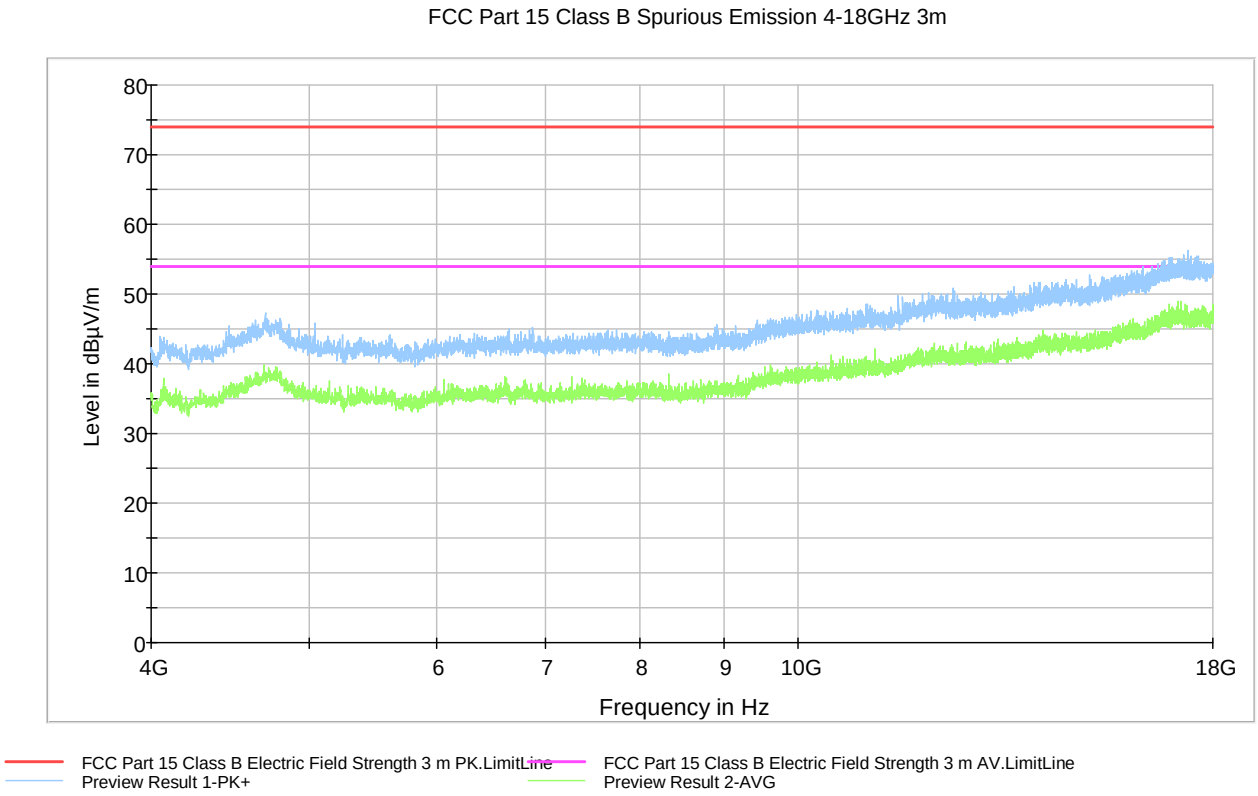


Figure 12. Measured curve with peak- and average detector. Channel High.

Final measurements from the worst frequencies

Due to the low emission level no final measurements were made.

Measured Peak and Average Values In The Frequency Range 18 000 MHz – 26 500 MHz.

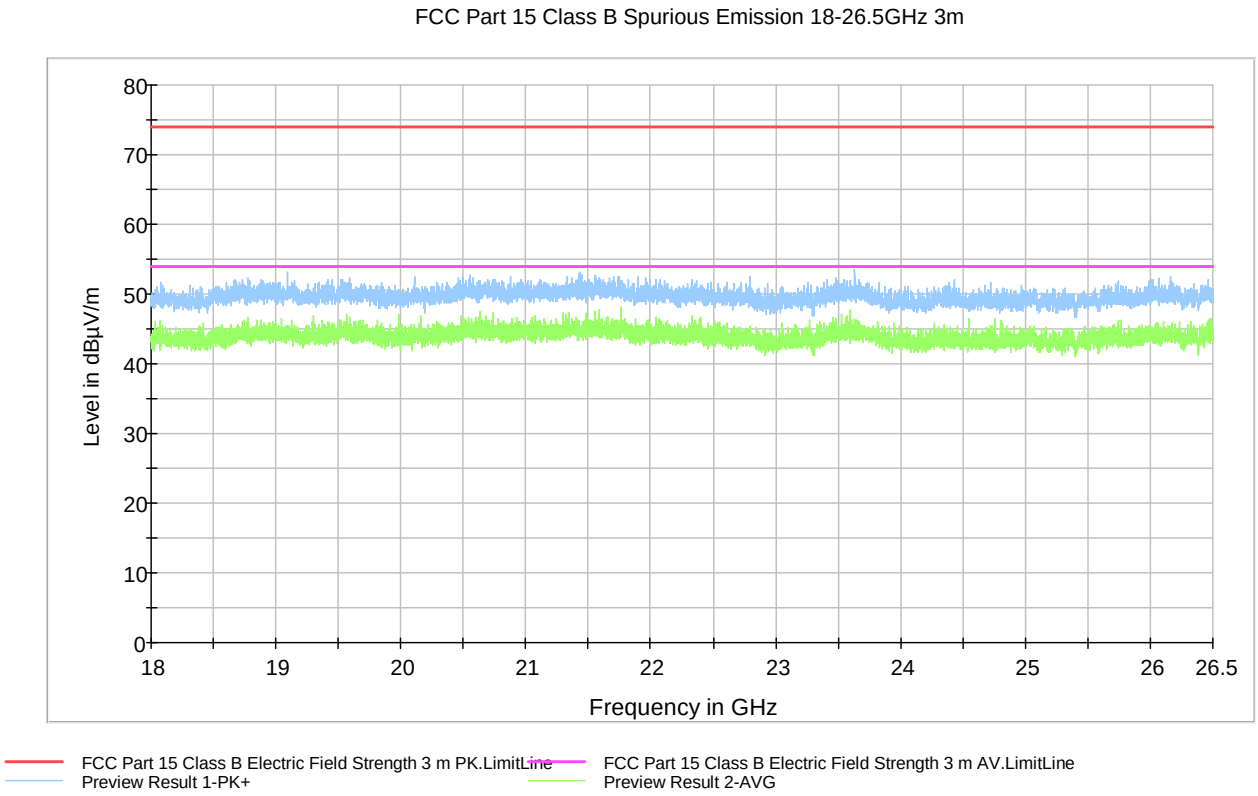


Figure 13. Measured curve with peak- and average detector. Channel Low.

Final measurements from the worst frequencies

Due to the low emission level no final measurements were made.

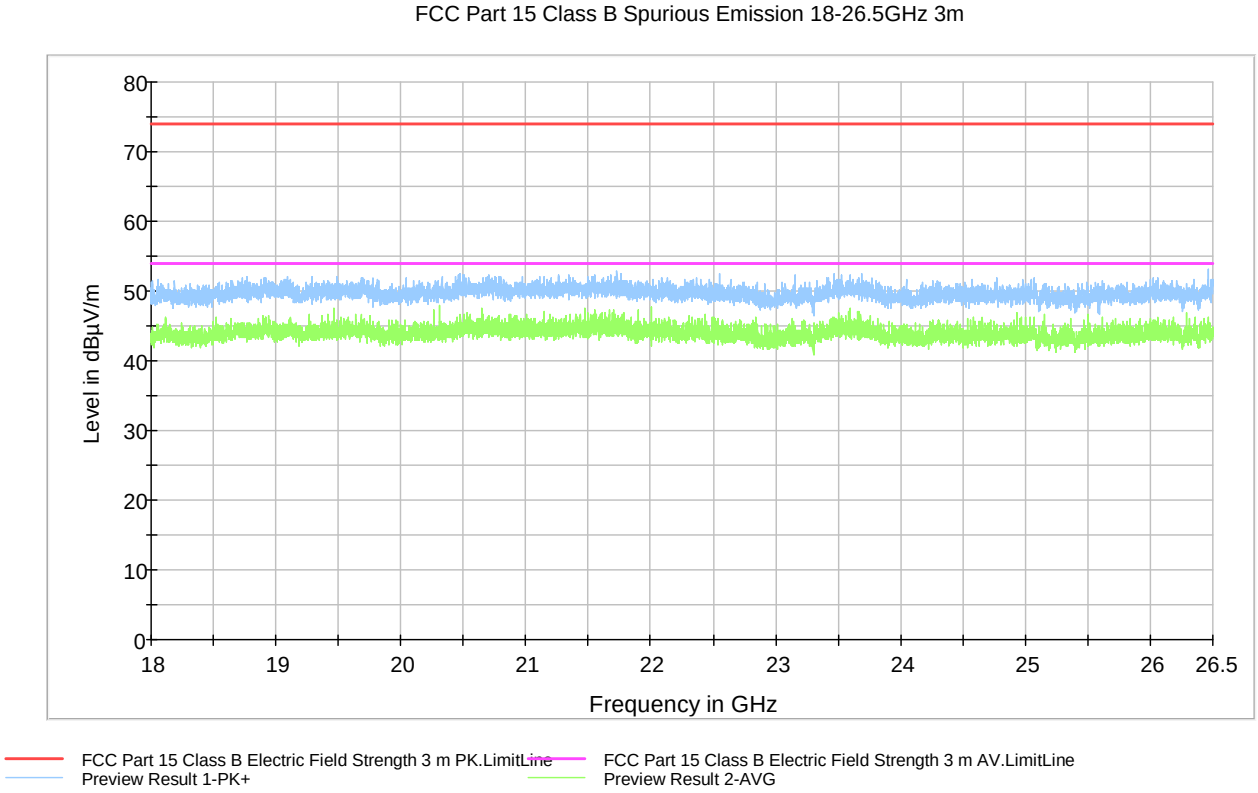


Figure 14. Measured curve with peak- and average detector. Channel Mid.

Final measurements from the worst frequencies

Due to the low emission level no final measurements were made.

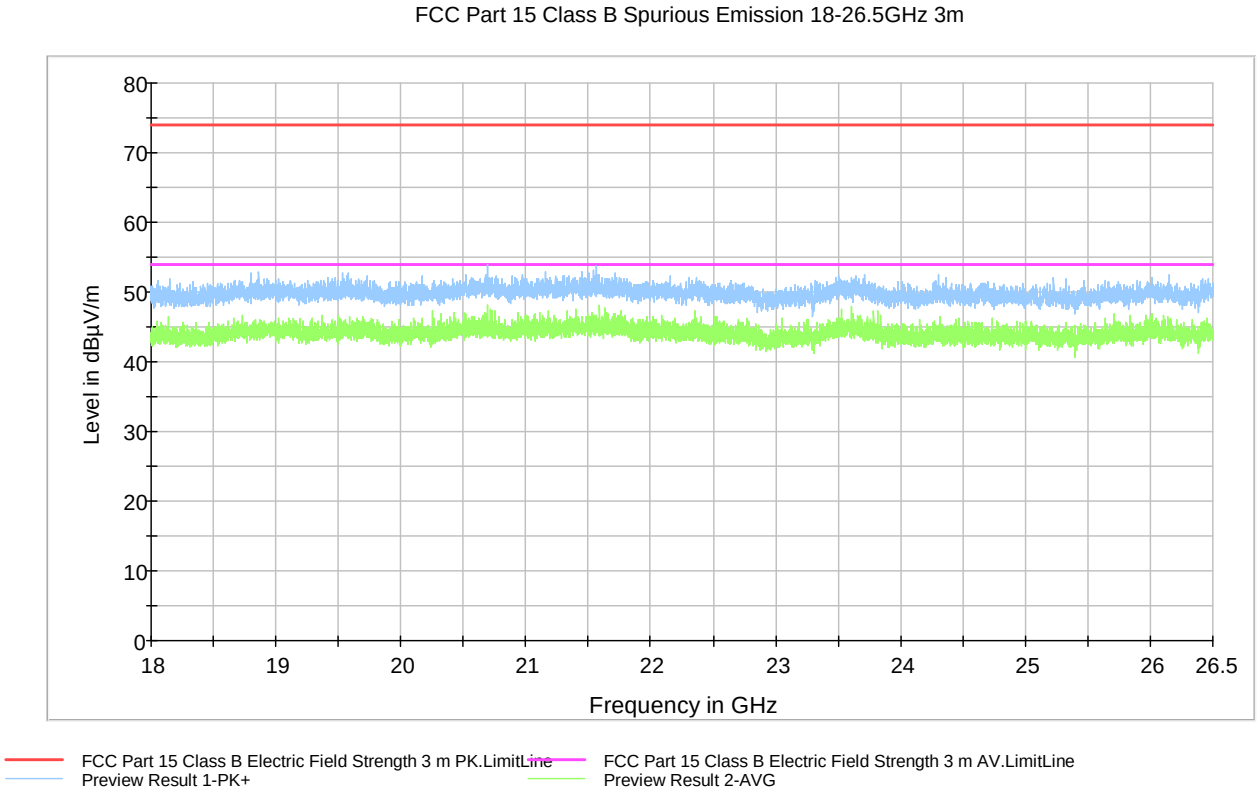


Figure 15. Measured curve with peak- and average detector. Channel High.

Final measurements from the worst frequencies

Due to the low emission level no final measurements were made.

Radiated band edge measurement results

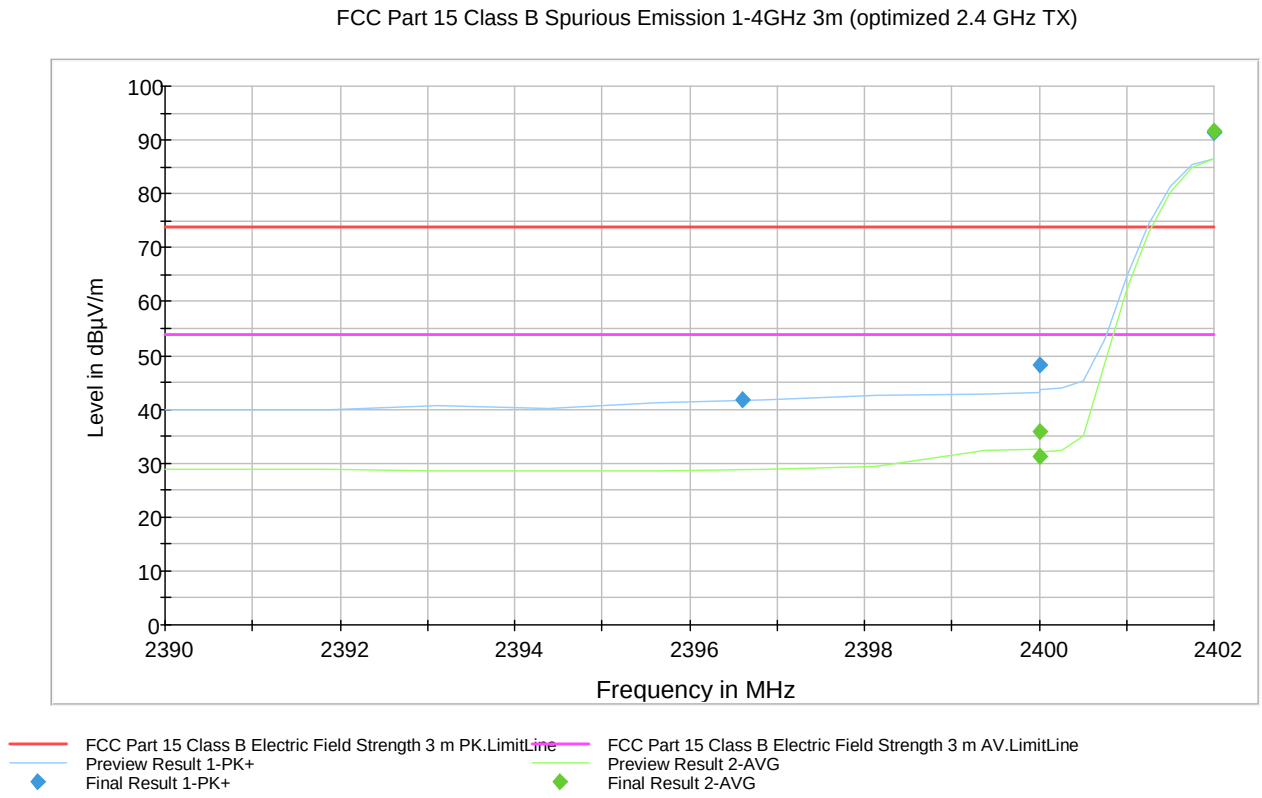


Figure 16. Measured curve with peak- and average detector. Lower band edge.

Final measurements from the worst frequencies

Table 12. Final Max Peak results.

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
2396.600000	41.7	1000.0	1000.000	277.0	V	0.0	32.2	73.9	
2400.000000	48.2	1000.0	1000.000	228.0	H	37.0	25.7	73.9	
2402.000000	91.5	1000.0	1000.000	225.0	H	36.0	-17.6	73.9	Carrier

Table 13. Final Average results.

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)	Comment
2400.000000	35.9	1000.0	1000.000	228.0	H	38.0	18.0	53.9	
2400.000000	31.2	1000.0	1000.000	210.0	V	0.0	22.7	53.9	
2402.000000	91.5	1000.0	1000.000	226.0	H	36.0	-37.6	53.9	Carrier

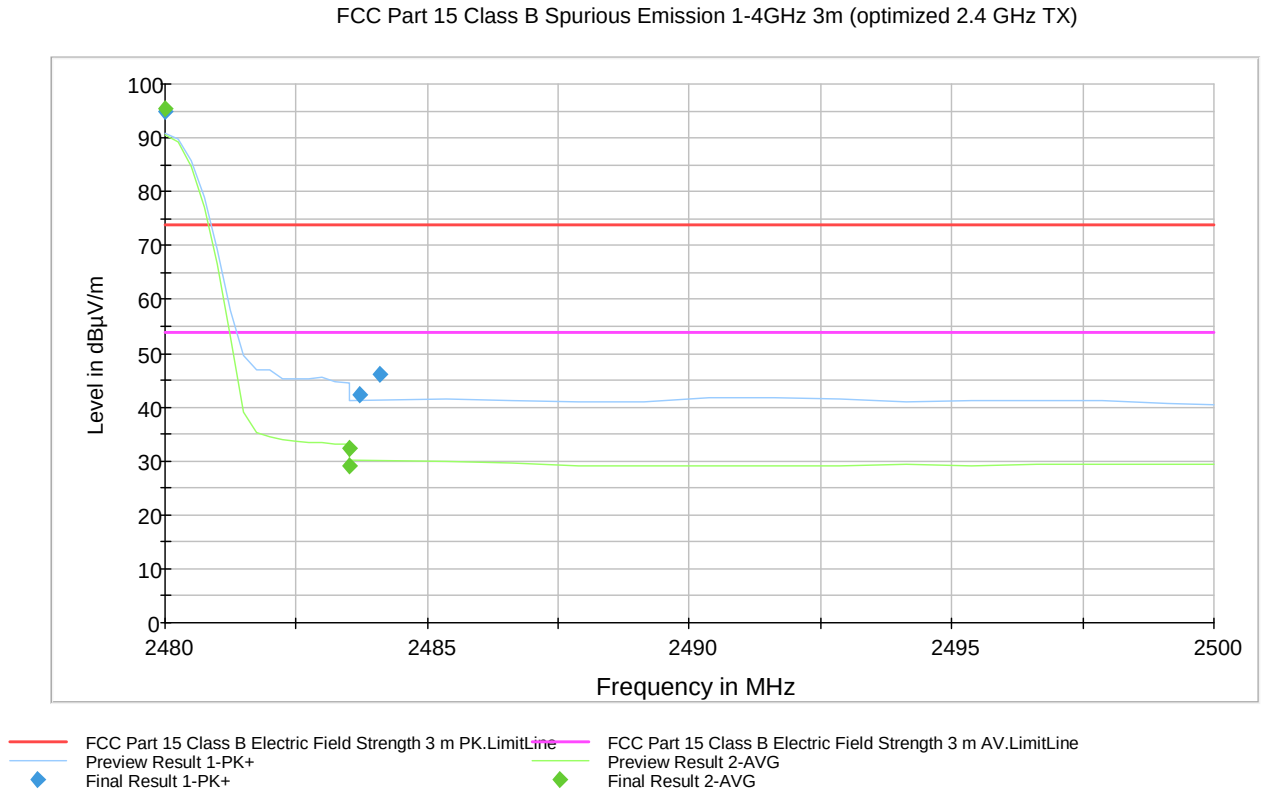


Figure 17. Measured curve with peak- and average detector. Upper band edge.

Final measurements from the worst frequencies

Table 14. Final Max Peak results.

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
2480.000000	94.8	1000.0	1000.000	210.0	H	163.0	4.7	-20.9	73.9	Carrier
2483.700000	42.3	1000.0	1000.000	180.0	V	211.0	4.8	31.6	73.9	
2484.100000	46.1	1000.0	1000.000	267.0	H	182.0	4.8	27.8	73.9	

Table 15. Final Average results.

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
2480.000000	95.4	1000.0	1000.000	215.0	H	164.0	4.7	-41.5	53.9	Carrier
2483.500000	32.3	1000.0	1000.000	210.0	H	163.0	4.8	21.6	53.9	
2483.500000	29.1	1000.0	1000.000	130.0	V	199.0	4.8	24.8	53.9	

Transmitter Band Edge Measurement and Conducted Spurious Emissions

Standard:	ANSI C63.10	(2009)
Tested by:	NKO	
Date:	28.5.2014	
Humidity:	27 %	
Temperature:	25.3 °C	
Measurement uncertainty	± 2.87 dB	Level of confidence 95 % (k = 2)

FCC Rule: 15.247(d), 15.209(a)

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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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 15.205(c)).

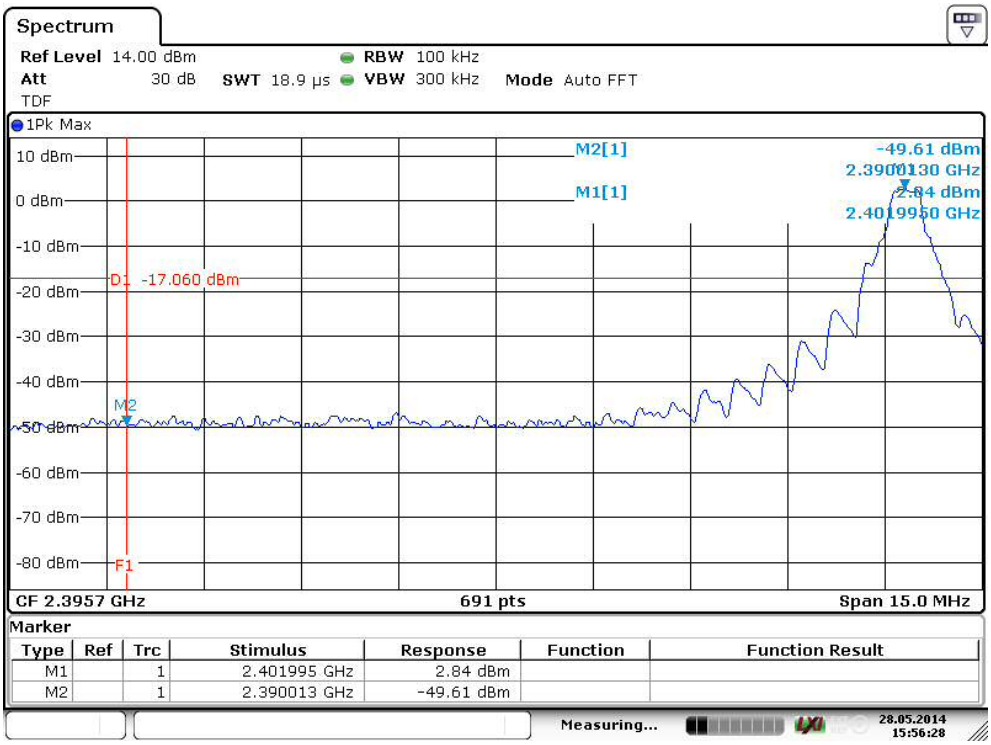
Table 16. Band edge attenuation.

Band Edge Attenuation	
Lower Band Edge	Upper Band Edge
-52.22 dBc	-48.30 dBc
Limit: -20dBc	

Table 17. Conducted spurious emissions.

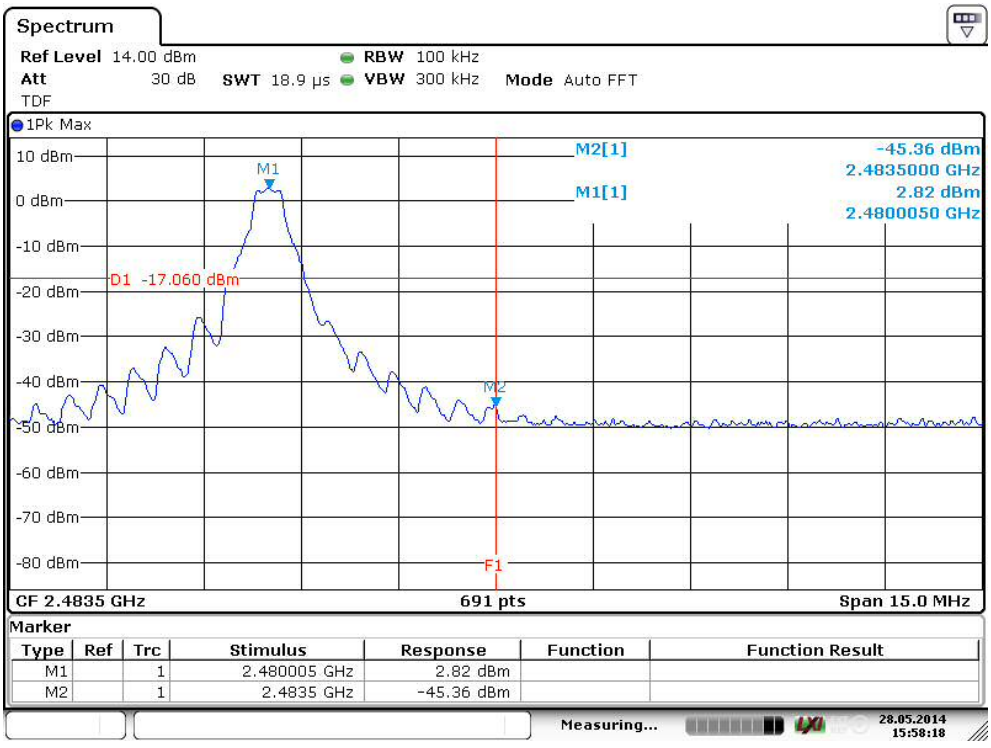
Conducted Spurious Emissions				
Channel	**Measured Attenuation [dB]**	**Limit [dBc]**	**Margin [dB]**	**Result**
Low	-	-20.0	-	-
Mid	-	-20.0	-	-
High	-	-20.0	-	-

No significant emissions were detected close to the limit.



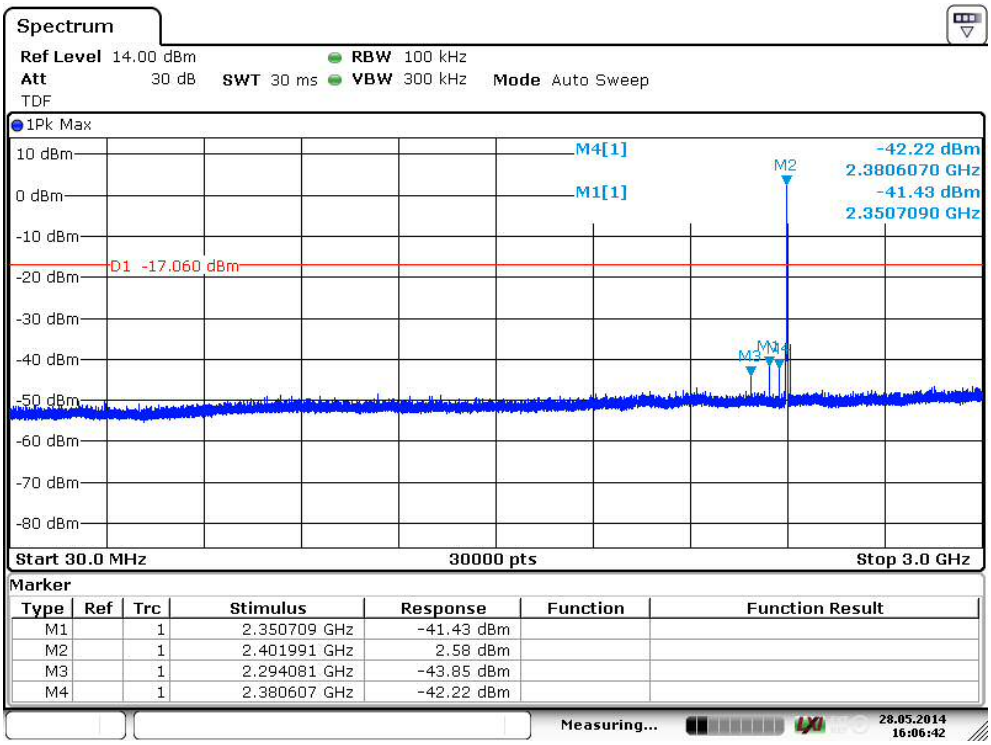
Date: 28.MAY.2014 15:56:27

Figure 18. Lower Band Edge.



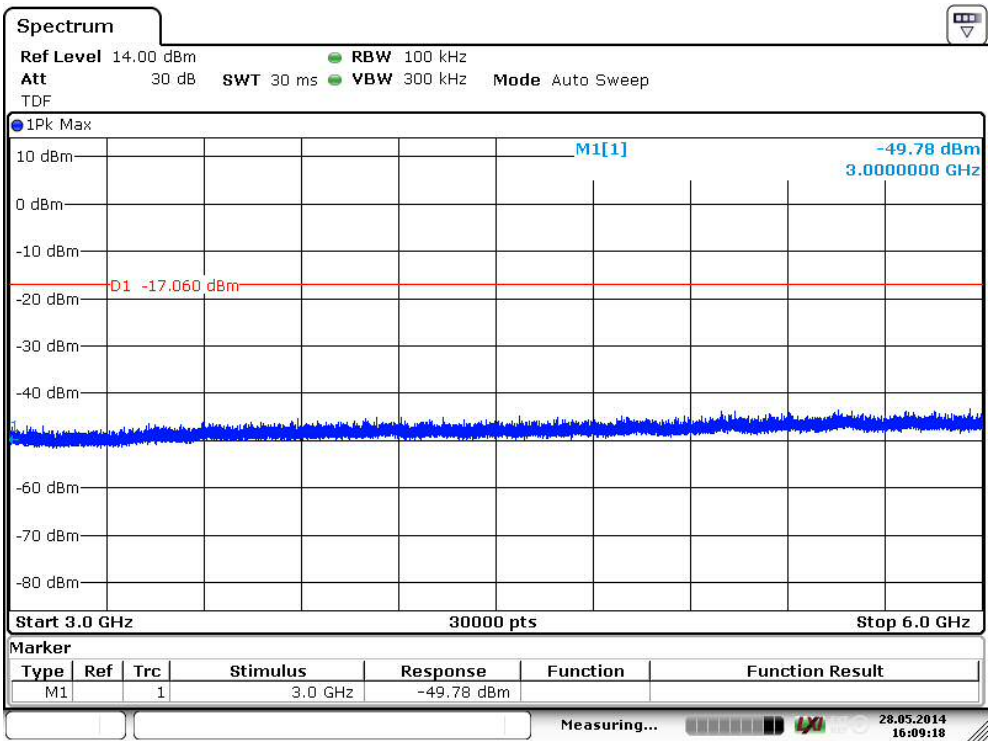
Date: 28.MAY.2014 15:58:17

Figure 19. Upper Band Edge.



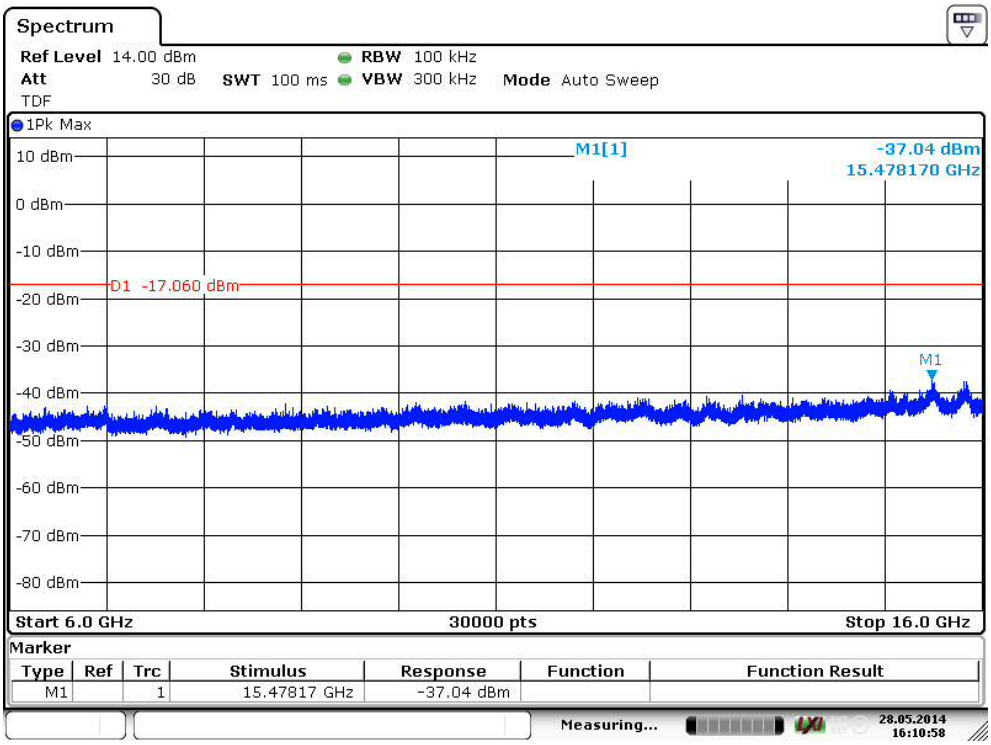
Date: 28.MAY.2014 16:06:41

Figure 20. Conducted Spurious Emissions 30 – 3 000 MHz. Channel Low.



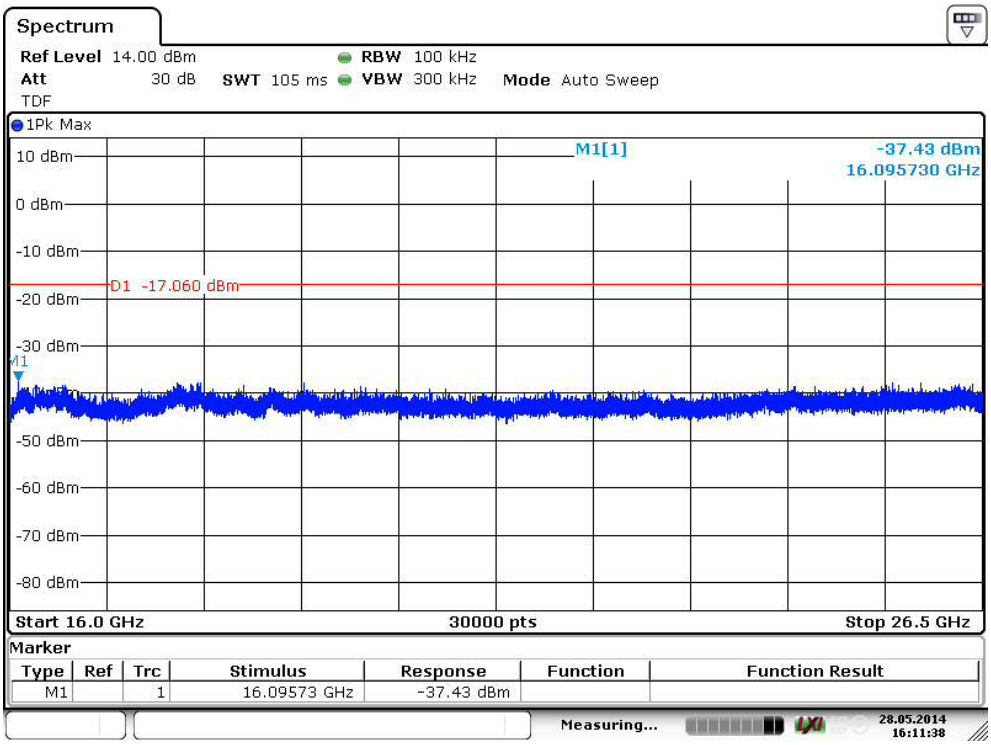
Date: 28.MAY.2014 16:09:17

Figure 21. Conducted Spurious Emissions 3 000 – 6 000 MHz. Channel Low.



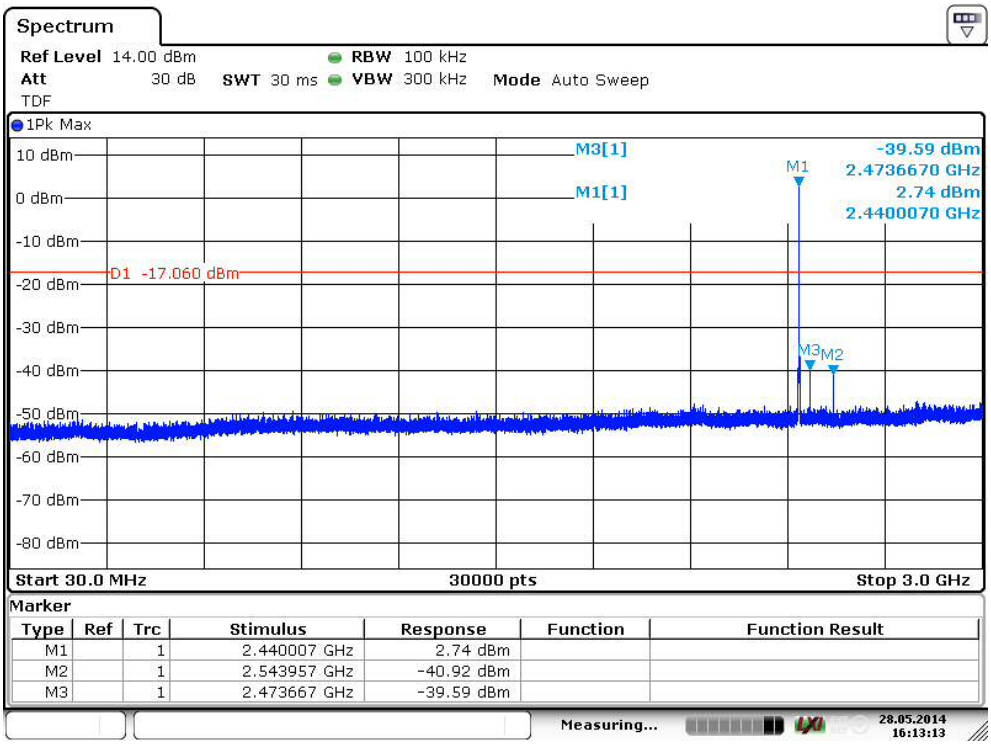
Date: 28.MAY.2014 16:10:57

Figure 22. Conducted Spurious Emissions 6 000 – 16 000 MHz. Channel Low.



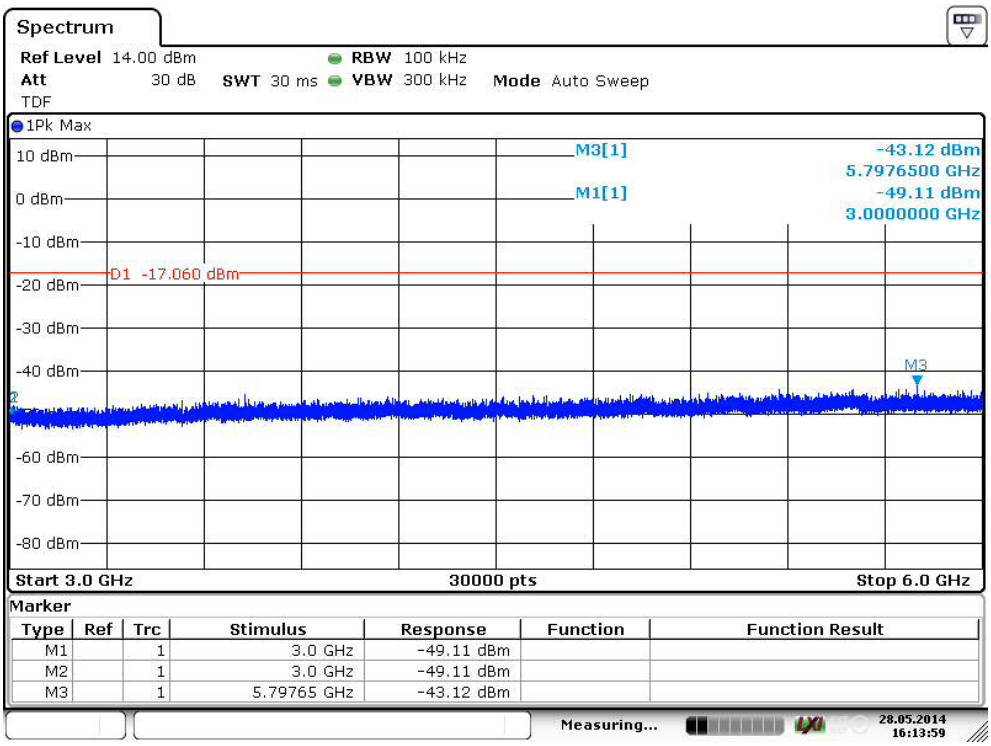
Date: 28.MAY.2014 16:11:37

Figure 23. Conducted Spurious Emissions 16 000 – 26 500 MHz. Channel Low.



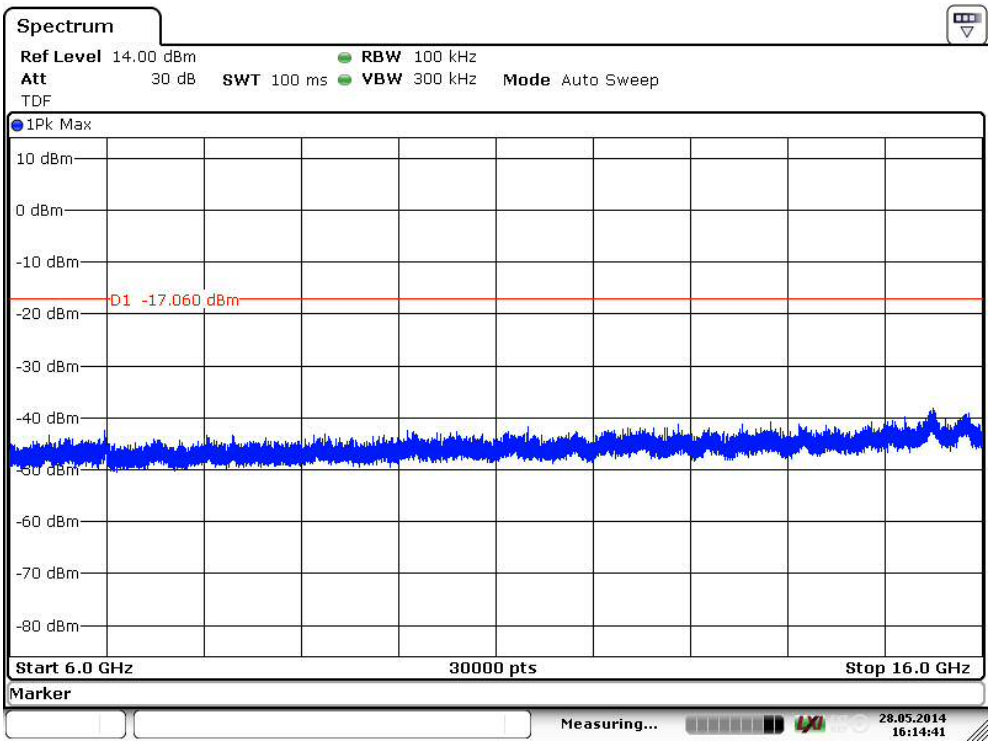
Date: 28.MAY.2014 16:13:12

Figure 24. Conducted Spurious Emissions 30 – 3 000 MHz. Channel Mid.



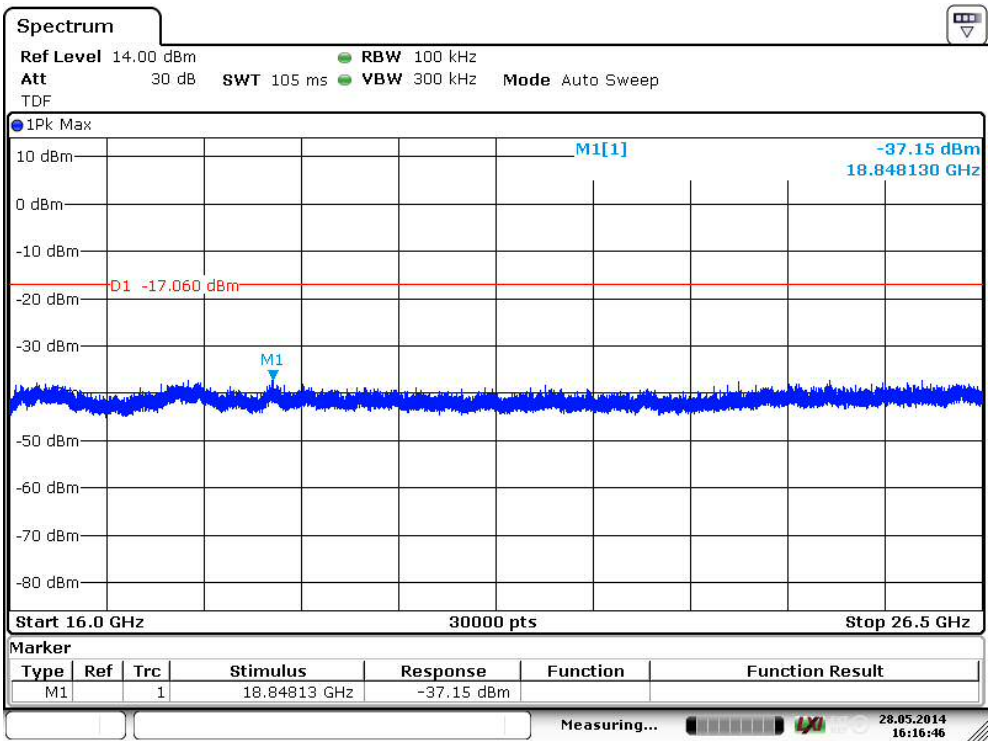
Date: 28.MAY.2014 16:13:58

Figure 25. Conducted Spurious Emissions 3 000 – 6 000 MHz. Channel Mid.



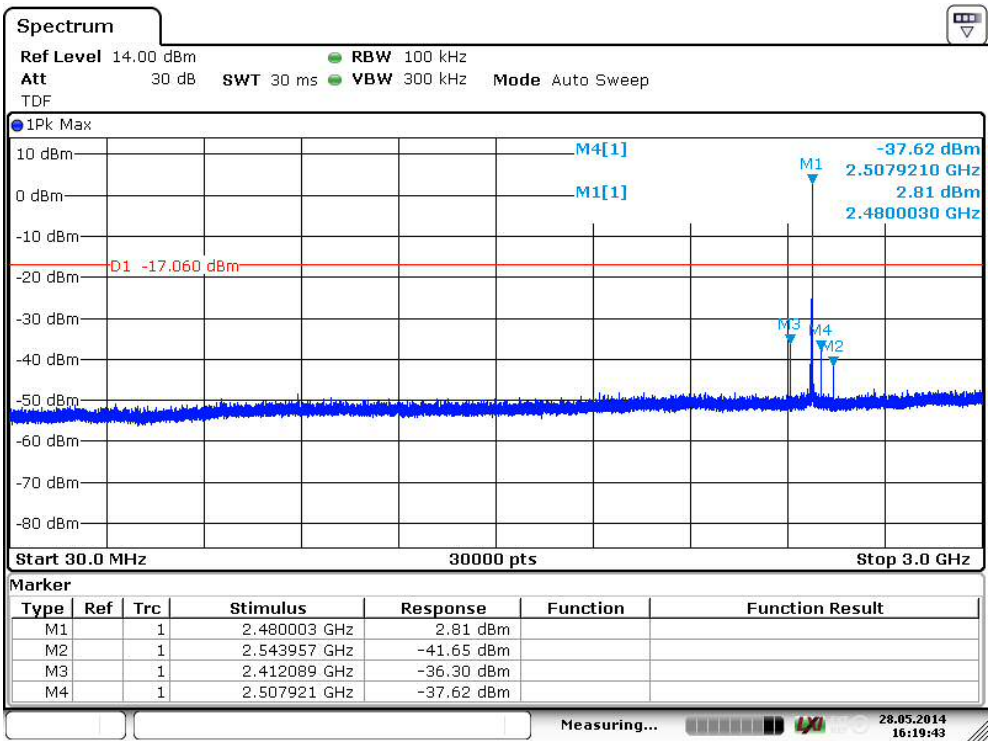
Date: 28.MAY.2014 16:14:40

Figure 26. Conducted Spurious Emissions 6 000 – 16 000 MHz. Channel Mid.



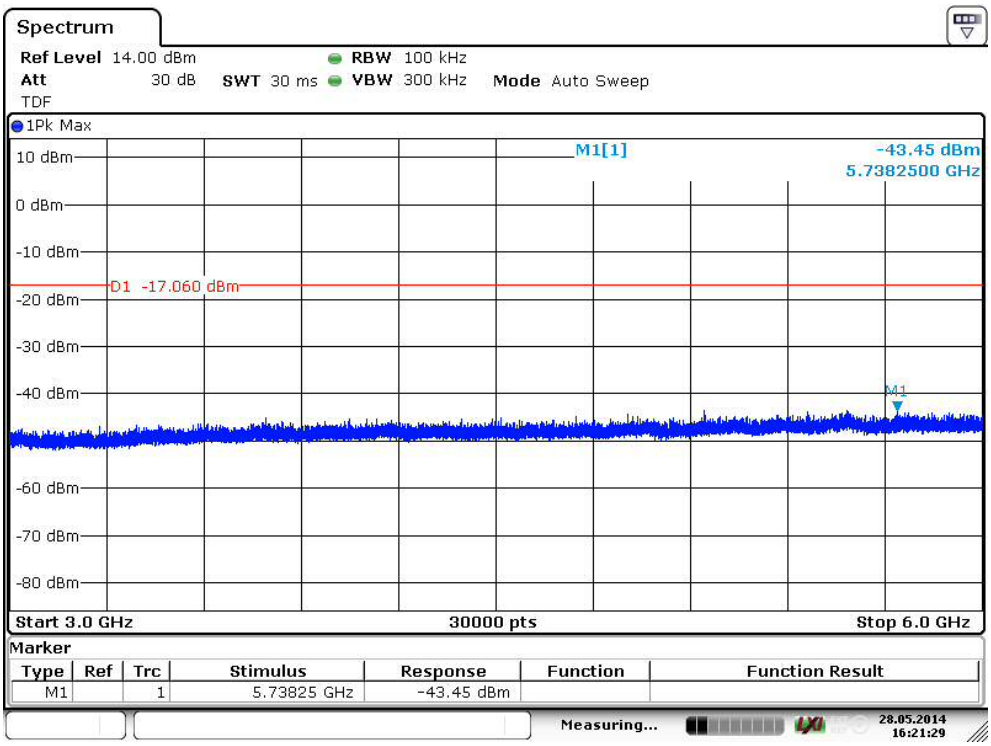
Date: 28.MAY.2014 16:16:46

Figure 27. Conducted Spurious Emissions 16 000 – 26 500 MHz. Channel Mid.



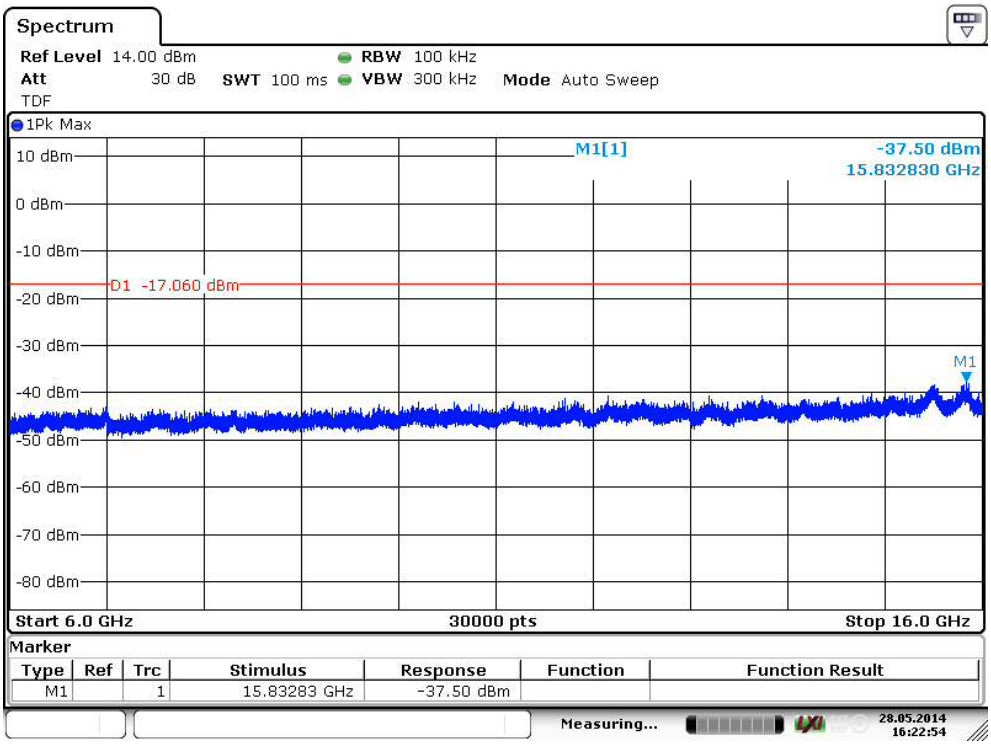
Date: 28.MAY.2014 16:19:42

Figure 28. Conducted Spurious Emissions 30 – 3 000 MHz. Channel High.



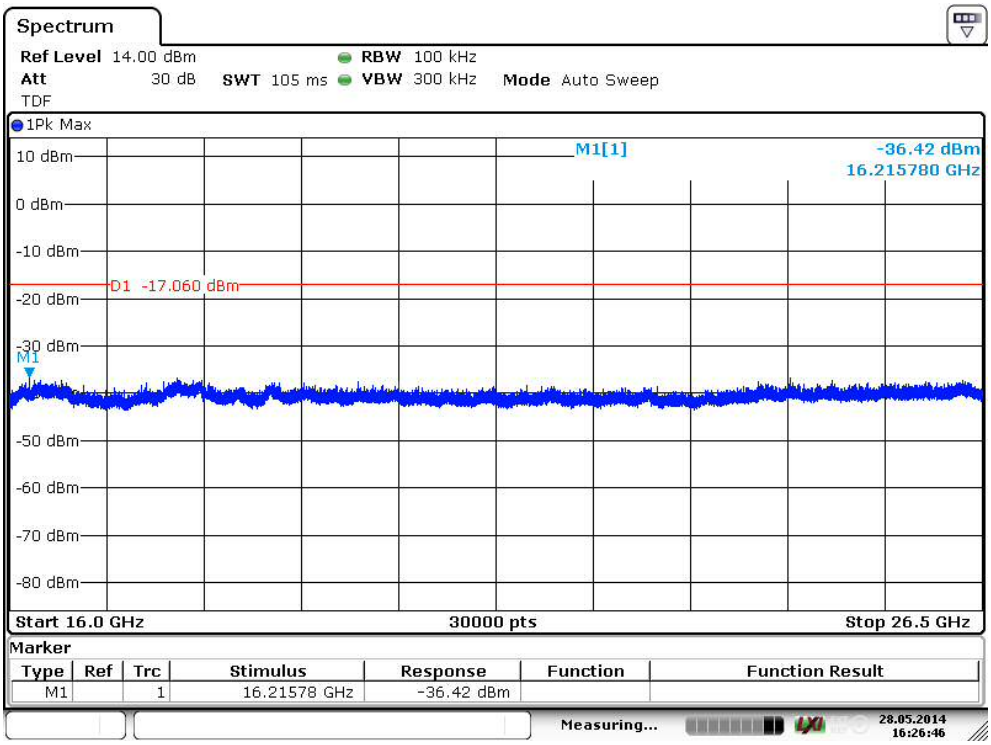
Date: 28.MAY.2014 16:21:29

Figure 29. Conducted Spurious Emissions 3 000 – 6 000 MHz. Channel High.



Date: 28.MAY.2014 16:22:54

Figure 30. Conducted Spurious Emissions 6 000 – 16 000 MHz. Channel High.



Date: 28.MAY.2014 16:26:45

Figure 31. Conducted Spurious Emissions 16 000 – 26 500 MHz. Channel High.

6 dB Bandwidth of the Channel

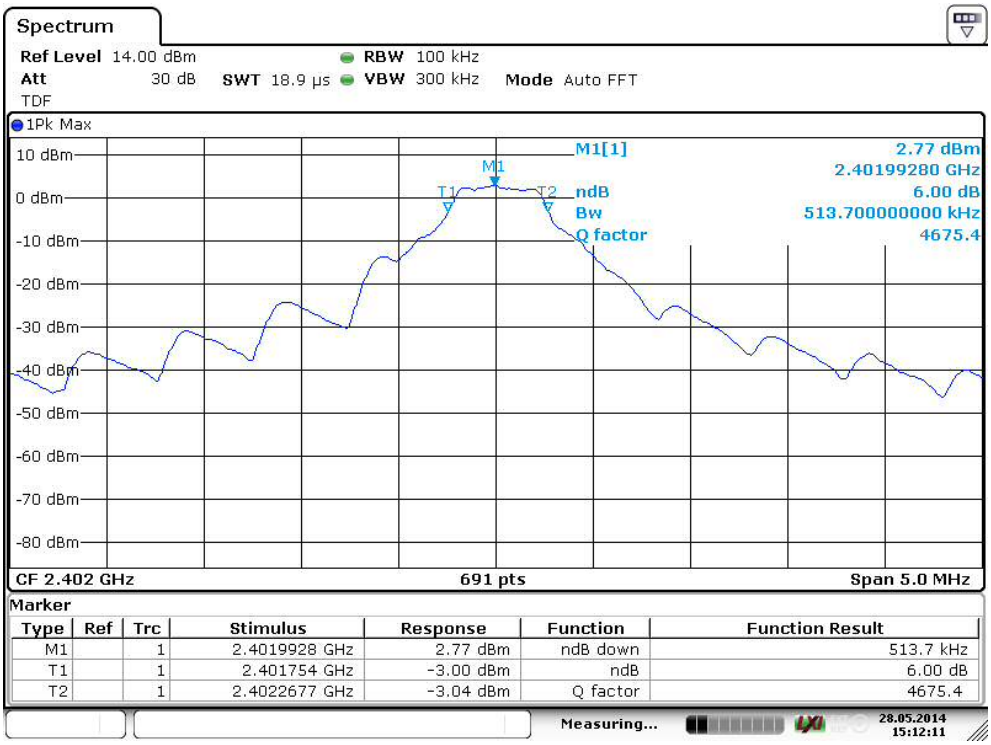
Standard:	ANSI C63.10	(2009)
Tested by:	NKO	
Date:	28.5.2014	
Humidity:	27 %	
Temperature:	25.3 °C	

FCC Rule: 15.247(a)(2)
RSS-210 A8.2

Results:

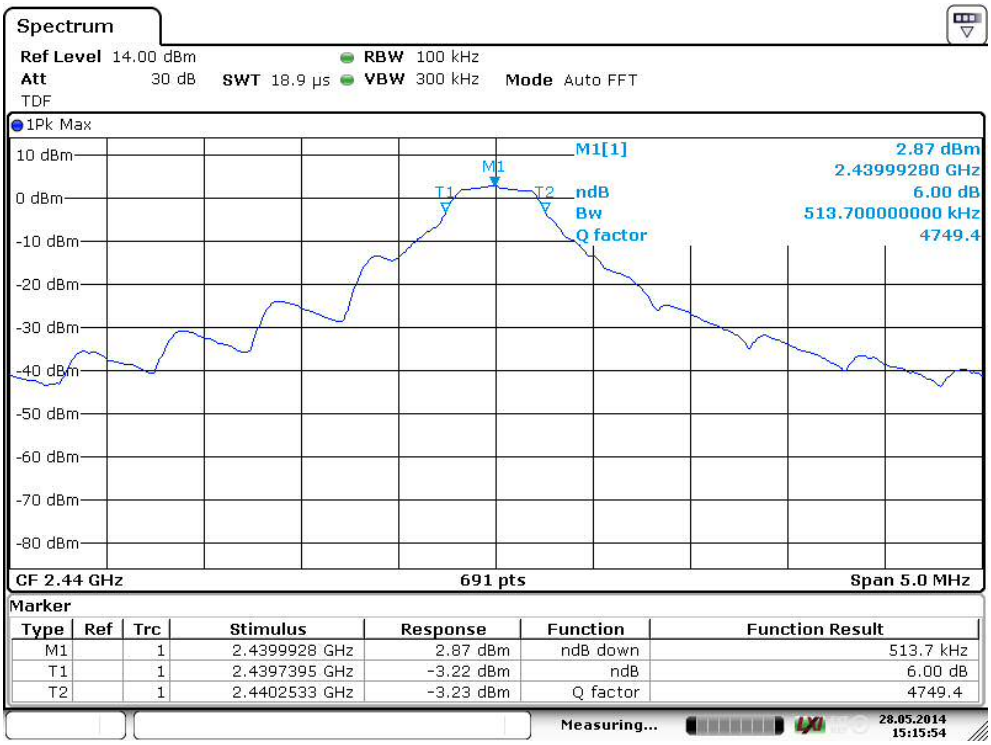
Table 18. 6 dB bandwidth test results.

Channel	6 dB BW [kHz]	Minimum limit [kHz]
Low	513.7	500
Mid	513.7	
High	513.7	



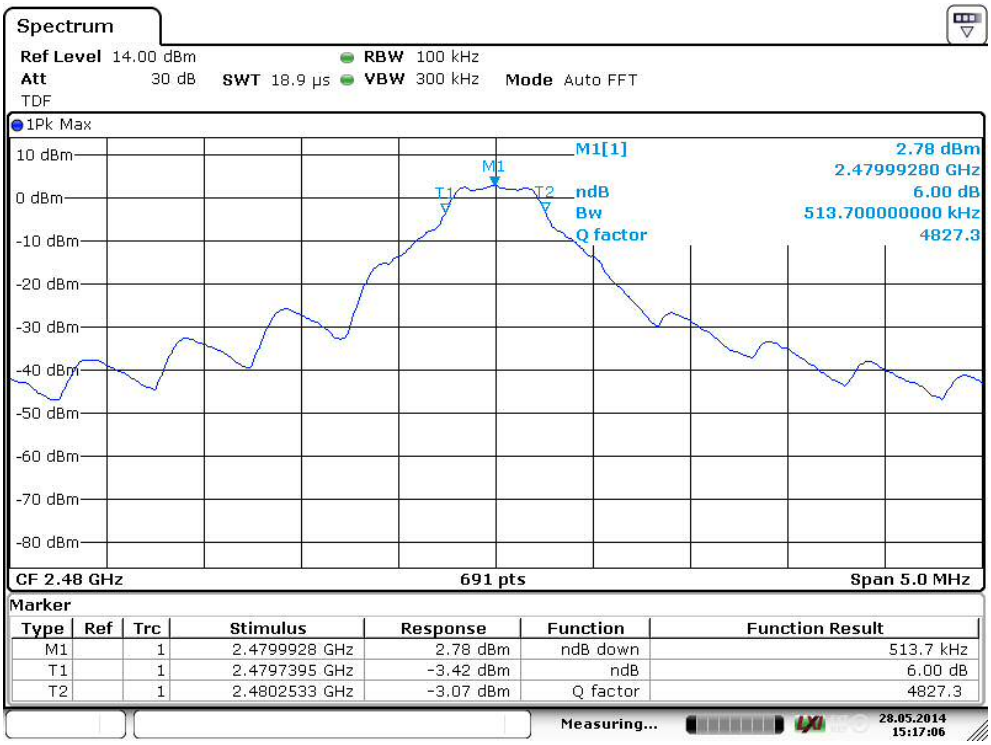
Date: 28.MAY.2014 15:12:12

Figure 32. 6 dB bandwidth of the channel Low.



Date: 28.MAY.2014 15:15:55

Figure 33. 6 dB bandwidth of the channel Mid.



Date: 28.MAY.2014 15:17:07

Figure 34. 6 dB bandwidth of the channel High.

Power Spectral Density

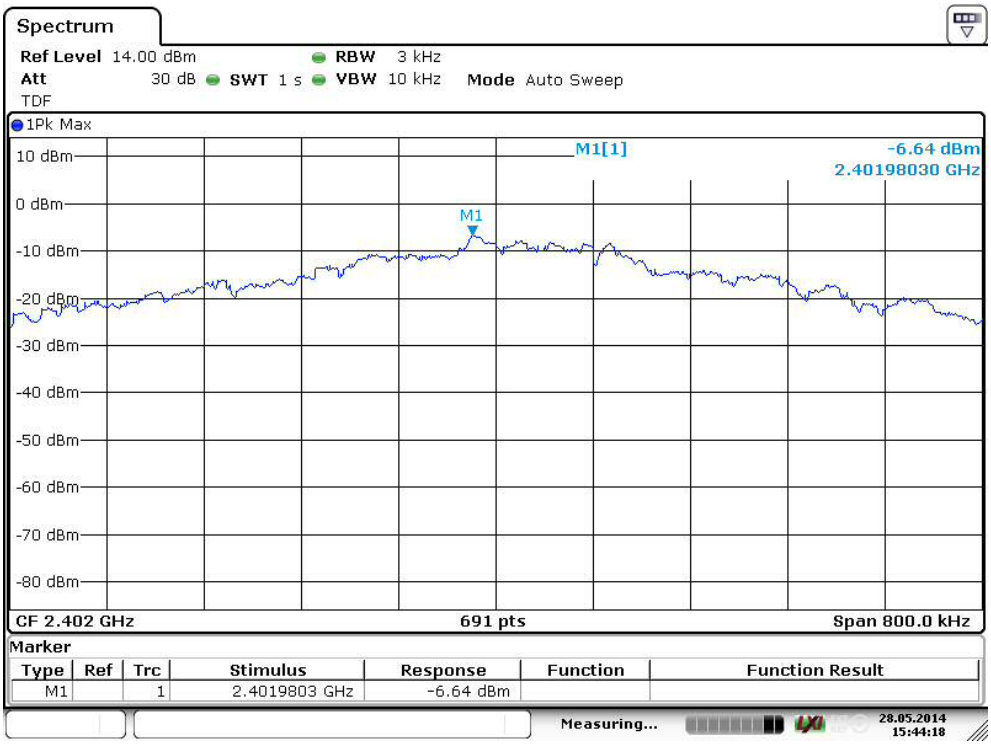
Standard:	ANSI C63.10	(2009)
Tested by:	NKO	
Date:	28.5.2014	
Humidity:	27 %	
Temperature:	25.3 °C	

FCC Rule: 15.247(e)
RSS-210 A8.2

Results:

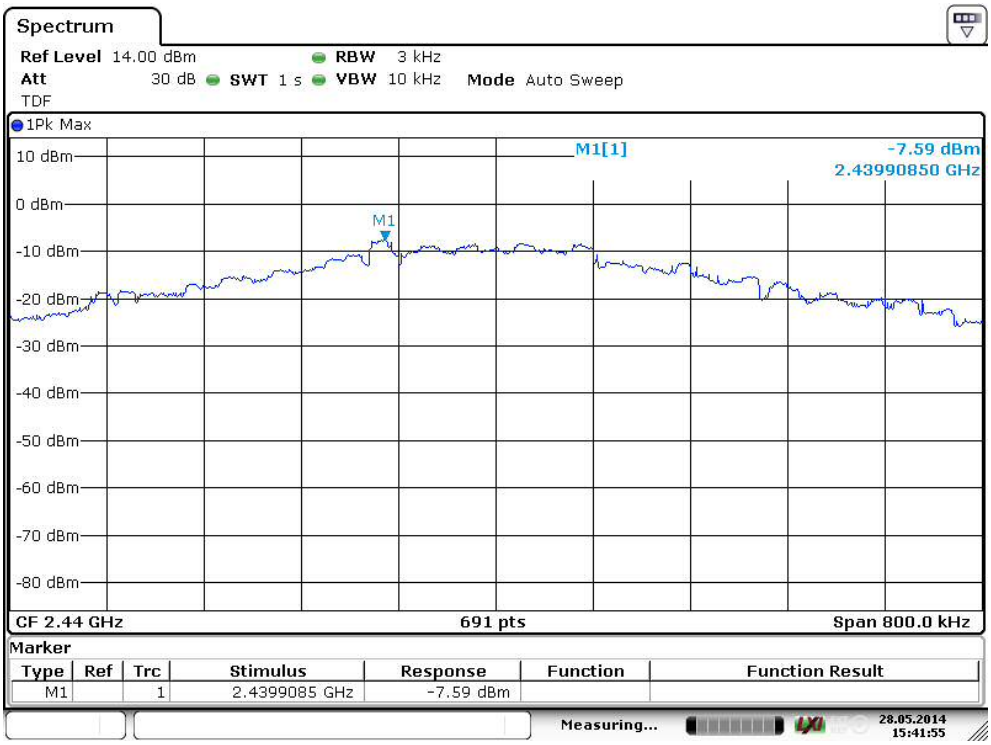
Table 19. Power Spectral Density test results.

Channel	PSD dBm/3 kHz	Maximum limit [dBm/3kHz]
Low	-6.64	+8.00
Mid	-7.59	
High	-6.01	



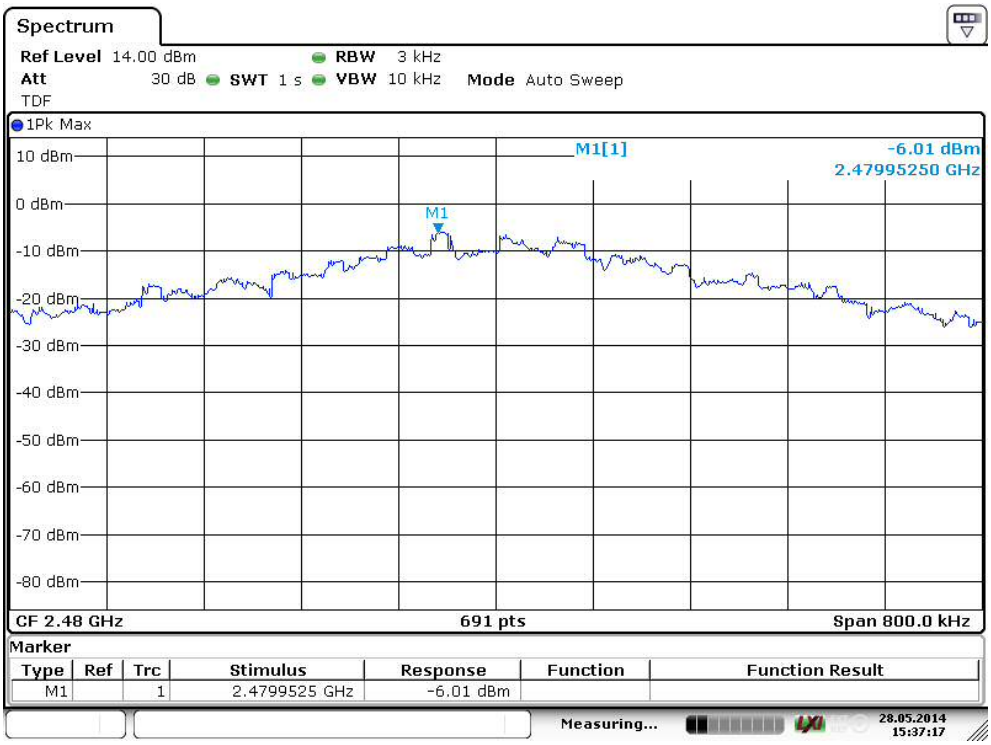
Date: 28.MAY.2014 15:44:18

Figure 35. Power Spectral Density of the channel Low.



Date: 28.MAY.2014 15:41:55

Figure 36. Power Spectral Density of the channel Mid.



Date: 28.MAY.2014 15:37:18

Figure 37. Power Spectral Density of the channel High.

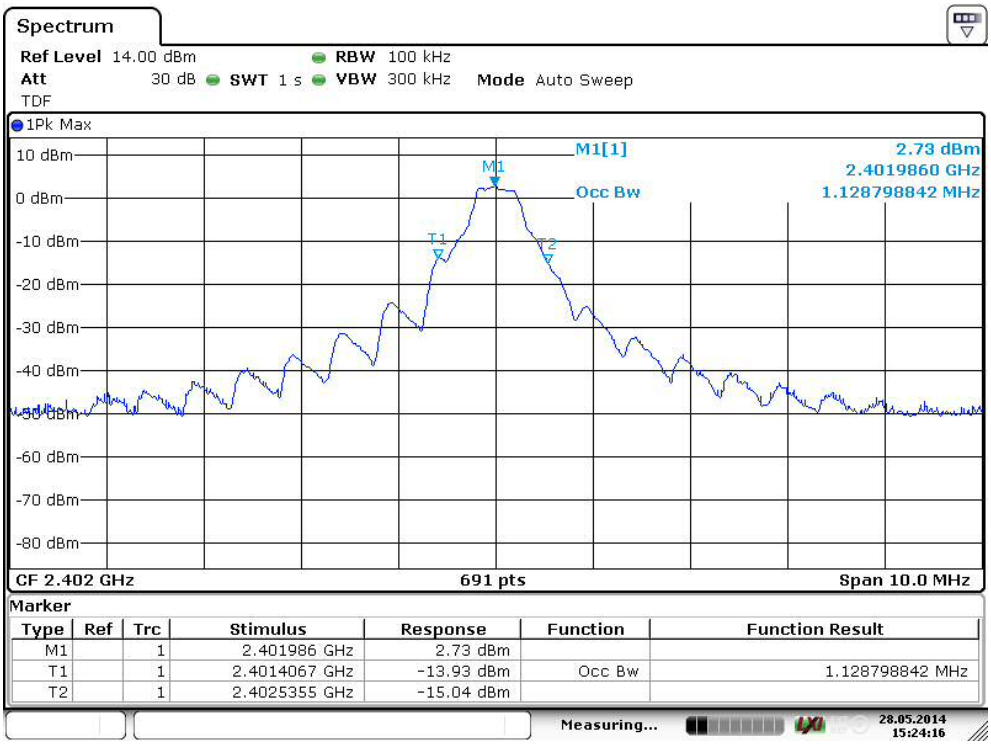
99% Occupied Bandwidth

Standard:	RSS-GEN	(2010)
Tested by:	NKO	
Date:	28.5.2014	
Humidity:	27 %	
Temperature:	25.3 °C	

RSS-GEN 4.7

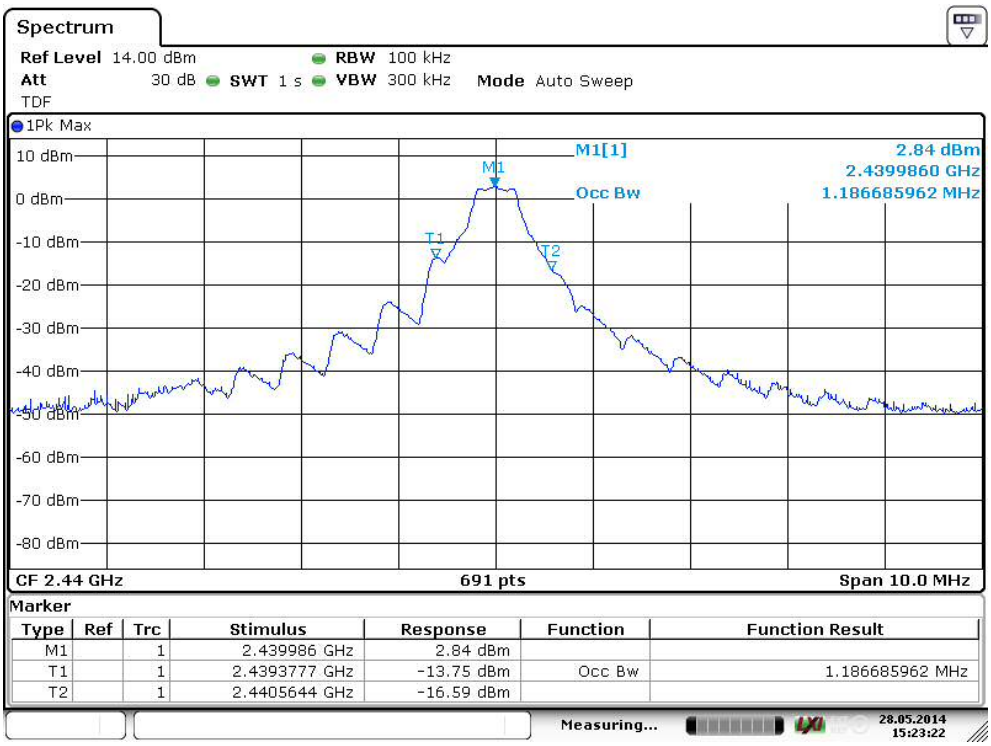
Table 20. 99 % OBW test results.

Channel	Limit	99 % BW [MHz]	Result
Low	-	1.128798842	PASS
Mid	-	1.186685962	PASS
High	-	1.056439942	PASS



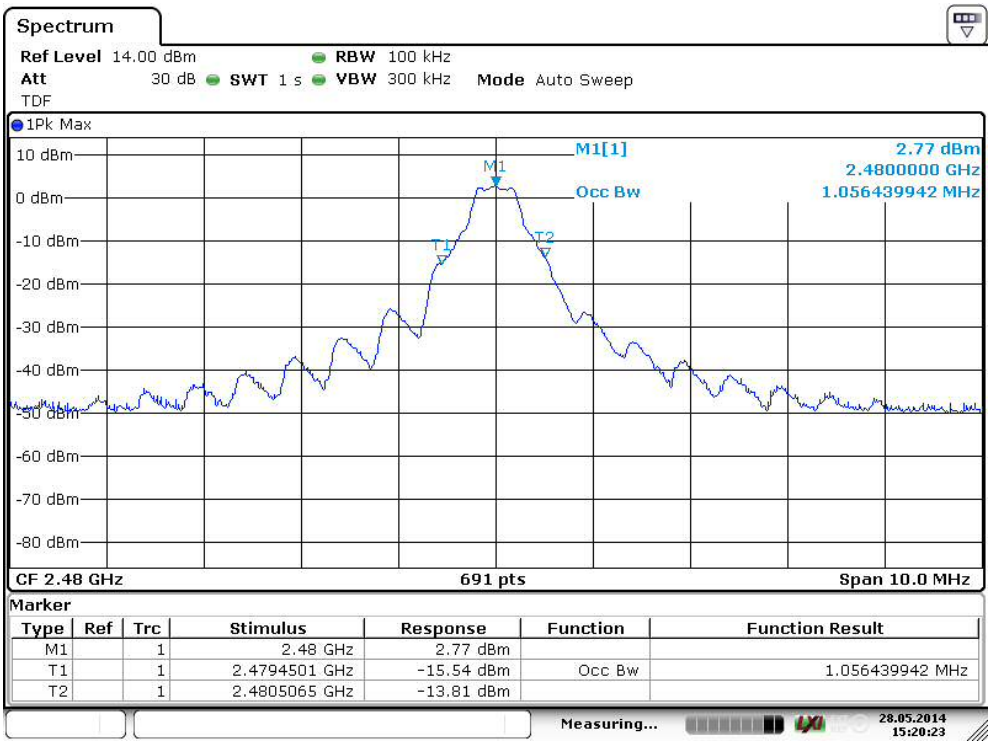
Date: 28.MAY.2014 15:24:15

Figure 38. 99 % OBW. Channel Low.



Date: 28.MAY.2014 15:23:22

Figure 39. 99 % OBW. Channel Mid.



Date: 28.MAY.2014 15:20:23

Figure 40. 99 % OBW. Channel High.

Test Equipment

Manufacturer	Type	Serial no	Inv. no
ROHDE & SCHWARZ			
Spectrum Analyzer	FSV 40	101068	9093
EMI Test receiver	ESU 26	100185	8453
Test software	EMC32	-	-
DAVIS			
Weather station	Vantage Pro	-	5297
ETS-LINDGREN			
Antenna (18 GHz – 26 GHz)	3160-09	28535	7294
EMCO			
Antenna (1 - 18 GHz)	3117	29617	7293
SCHWARZBECK			
Antenna (30 MHz - 1 GHz)	VULB 9168	9168-503	8911
HEWLETT- PACKARD			
Microwave amplifier	83017A	-	5226
HUBER-+ SUHNER			
Attenuator 10dB	6810.17B	-	-
DEISEL			
Antenna mast	MA 240	240/455	7896
Turntable	DS 430	-	-
WAINWRIGHT			
High Pass Filter	WHKX	10	8267

All used measurement equipment was calibrated (if required).