



SENTON

**Choose certainty.  
Add value.**

Straubing, 05 May 2009

## **TEST-REPORT**

**No. 55147-081414-2 (Edition 1)**

**for**

**NIT M14509**

**NIT**

**Applicant:** Fakt S.r.l.

**Test Specifications:** FCC Code of Federal Regulations,  
CFR 47, Part 15,  
Sections 15.107, 15.109, 15.205, 15.207,  
15.215 and 15.247

**Industry Canada Radio Standards**

**Note:**

The test data of this report is related only to the individual item which has been tested. This report shall not be reproduced except in full extent without the written approval of the testing laboratory.

Specifications  
RSS-Gen Issue 2, Sections 7.2.2, 7.2.3 and  
RSS-210 Issue 7, Sections 2.2, A8  
(Category I Equipment)

## Table of Contents

|     |  |    |
|-----|--|----|
| 1   | Description of the Equipment Under Test (EUT).....           | 4  |
| 2   | Administrative Data.....                                     | 5  |
| 3   | Identification of the Test Laboratory.....                   | 6  |
| 4   | Summary .....  | 7  |
| 5   | Operation Mode and Configuration of EUT .....                | 8  |
| 6   | Measurement Procedures.....                                  | 9  |
| 6.1 | Radiated Emission Measurement 9 kHz to 30 MHz .....          | 9  |
| 6.2 | Radiated Emission in Fully or Semi Anechoic Room.....        | 11 |
| 6.3 | Radiated Emission at Open Field Test Site .....              | 14 |
| 6.4 | Restricted Bands of Operation and Band Edge Compliance ..... | 18 |
| 6.5 | Radiated Emission Measurement 9 kHz to 30 MHz .....          | 19 |
| 6.6 | Radiated Emission Measurement 30 MHz to 25 GHz .....         | 20 |
| 7   | Referenced Regulations .....                                 | 23 |
| 8   | Calibration Status.....                                      | 25 |
| 9   | Revision History .....                                       | 27 |
| 10  | Charts taken during testing .....                            | 28 |

## 1 Description of the Equipment Under Test (EUT)

| General data of EUT             |                        |
|---------------------------------|------------------------|
| Type designation <sup>1</sup> : | NIT M14509             |
| Parts <sup>2</sup> :            |                        |
| Serial number(s):               | #68                    |
| Manufacturer:                   | Magneti Marelli S.p.A. |
| Type of equipment:              | NIT                    |
| Version:                        | As delivered           |
| FCC ID:                         | N/A                    |
| Additional parts/accessories:   |                        |

| Technical data of EUT                   |  |
|---|--|
| Application frequency range:            | 2400 - 2483.5 MHz  |
| Frequency range:                        | 2400 – 2483.5 MHz  |
| Operating frequency:                    | For Test Purposes only: 2402 MHz, 2440 MHz, 2480 MHz                                   |
| Type of modulation:                     | FHSS   |
| Pulse train:                            | N/A  |
| Pulse width:                            | N/A  |
| Number of RF-channels:                  | 79   |
| Channel spacing:                        | 1 MHz  |
| Designation of emissions <sup>3</sup> : |  |
| Type of antenna:                        | Integrated (Temporary antenna connector for test purpose)                              |
| Size/length of antenna:                 | PC B Track   |
| Connection of antenna:                  | <input type="checkbox"/> detachable <input checked="" type="checkbox"/> not detachable |
| Type of power supply:                   | Battery supply (Vehicle operation only)  |
| Specifications for power supply:        | nominal voltage: 12.0 V<br>minimum voltage: 10.8 V<br>maximum voltage: 13.2 V          |

<sup>1</sup> Type designation of the system if EUT consists of more than one part.

<sup>2</sup> Type designations of the parts of the system, if applicable.

<sup>3</sup> Also known as "Class of Emission".

## 2 Administrative Data

| Application details       |   |
|---------------------------|---|
| Applicant (full address): | Fakt S.r.l.<br>Via Lithos, 53<br>I - 25086 Rezzato (BS) |
| Contact person:           | Nicola Scartapacchio                                    |
| Contract identification:  | Verbal Order  |
| Receipt of EUT:           | 21 November 2008  |
| Date(s) of test:          | 21 November 2008  |
| Note(s):                  |   |

| Report details |                |
|----------------|----------------|
| Report number: | 55147-081414-2 |
| Edition:       | 1              |
| Issue date:    | May 5, 2009    |

### 3 Identification of the Test Laboratory

| Details of the Test Laboratory          |  |
|---|--|
| Company name:                           | Senton GmbH EMI/EMC Test Center                              |
| Address:                                | Aeussere Fruehlingstrasse 45<br>D-94315 Straubing<br>Germany |
| Laboratory accreditation:               | DAR-Registration No. DAT-P-171/94-02                         |
| FCC test site registration number       | 90926  |
| Industry Canada test site registration: | 3050A-1  |
| Contact person:                         | Mr. Johann Roidt   |
|   | Phone: (+49) (0)9421 5522-0<br>Fax: (+49) (0)9421 5522-99    |

## 4 Summary

### Summary of test results

The tested sample complies with the requirements set forth in the

**Code of Federal Regulations CFR 47, Part 15, Sections 15.107, 15.109, 15.205, 15.207, 15.215, 15.247 and 2.1093**

of the Federal Communication Commission (FCC) and the

**Radio Standards Specifications  
RSS-Gen Issue 2, Sections 7.2.2, 7.2.3 and  
RSS-210 Issue 7, Sections 2.2, 2.6 and A8 (Category I Equipment)**

of Industry Canada (IC)

in the parts tested.

### Personnel involved in this report

Laboratory Manager:

A handwritten signature in blue ink, appearing to read 'J. Roidt'.

Mr. Johann Roidt

Responsible for testing:

Mr. Johann Roidt

Responsible for test report:

Mr. Johann Roidt

## 5 Operation Mode and Configuration of EUT

### Operation Mode(s)

TX Mode at lowest (2402 MHz), middle (2440 MHz) and highest (2480 MHz) RF channel, RX Mode at 2440 MHz

### Configuration(s) of EUT

Full test setup supplied by applicant

### List of ports and cables

| <i>Port</i> | <i>Description</i>                    | <i>Classification<sup>4</sup></i> | <i>Cable type</i> | <i>Cable length</i> |
|-------------|---------------------------------------|-----------------------------------|-------------------|---------------------|
| 1           | Full test setup supplied by applicant |                                   |                   |                     |
| 2           |                                       |                                   |                   |                     |

### List of devices connected to EUT

| <i>Item</i> | <i>Description</i> | <i>Type Designation</i> | <i>Serial no. or ID</i> | <i>Manufacturer</i> |
|-------------|--------------------|-------------------------|-------------------------|---------------------|
| 1           | None               |                         |                         |                     |
| 2           |                    |                         |                         |                     |

### List of support devices

| <i>Item</i> | <i>Description</i> | <i>Type Designation</i> | <i>Serial no. or ID</i> | <i>Manufacturer</i> |
|-------------|--------------------|-------------------------|-------------------------|---------------------|
| 1           | None               |                         |                         |                     |
| 2           |                    |                         |                         |                     |

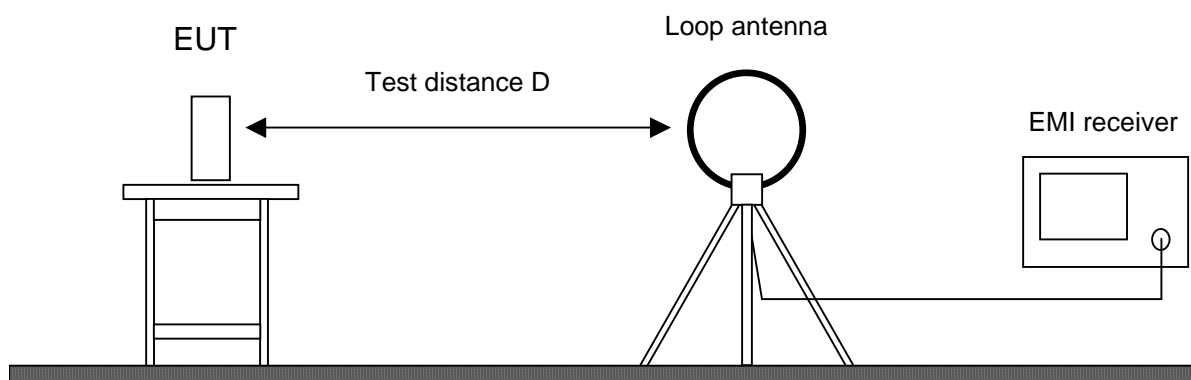
<sup>4</sup> Ports shall be classified as ac power, dc power or signal/control port



## 6 Measurement Procedures

### 6.1 Radiated Emission Measurement 9 kHz to 30 MHz

| Measurement Procedure:  |   |
|---|---|
| Rules and specifications:   | CFR 47 Part 15, sections 15.205(b) and 15.247<br>IC RSS-210 Issue 7, sections 2.2(b)(c), 2.6 and A8.5 |
| Guide:  | ANSI C63.4  |
| <p>Radiated emission in the frequency range 9 kHz to 30 MHz is measured using an active loop antenna. First the whole spectrum of emission caused by the equipment is recorded at a distance of 3 meters in a fully or semi anechoic room with the detector of the spectrum analyzer or EMI receiver set to peak. This configuration is also used for recording the spectrum of intentional radiators.</p> <p>Hand-held or body-worn devices are rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission relative to the limit and therefore shall be used for final testing. EUT is rotated all around to find the maximum levels of emissions. Equipment and cables are placed and moved within the range of position likely to find their maximum emissions.</p> <p>If worst case emission of the EUT cannot be recorded with EUT in standard position and loop antenna in vertical polarization the EUT (or the radiating part of the EUT) is rotated by 90 degrees instead of changing the loop antenna to horizontal polarization. This procedure is selected to minimize the influence of the environment (e.g. effects caused by the floor especially with longer distances).</p> <p>Final measurement is performed at a test distance D of 30 meters using an open field test site. In case the regulation requires testing at other distances, the result is extrapolated by either making measurements at an additional distance D of 10 meters to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). In cases of very low emissions measurements are performed at shorter distances and results are extrapolated to the required distance. The provisions of CFR 47 Part 15 sections 15.31(d) and (f)(2) apply. According to CFR 47 Part 15 section 15.209(d) final measurement is performed with detector function set to quasi-peak except for the frequency bands 9 to 90 kHz and 110 to 490 kHz where, for non-pulsed operation, average detector is employed.</p> <p>If the radiated emission limits are expressed in terms of the average value of the emission there also is a peak limit corresponding to 20 dB above the maximum permitted average limit. Additionally, if pulsed operation is employed, the average field strength is determined by averaging over one complete pulse train, including blanking intervals, as specified in CFR 47 Part 15 section 15.35(c). If the pulse train exceeds 0.1 second that 0.1 second interval during which the value of the emission is at its maximum is selected for calculation. The pulse train correction is added to the peak value of the emission to get the average value.</p> |   |



Test instruments used:

| Used                                | Type                 | Model    | Serial No. or ID         | Manufacturer       |
|-------------------------------------|----------------------|----------|--------------------------|--------------------|
| <input type="checkbox"/>            | Spectrum Analyzer    | FSP 30   | 100063                   | Rohde & Schwarz    |
| <input checked="" type="checkbox"/> | EMI test receiver    | ESMI     | 839379/013<br>839587/006 | Rohde & Schwarz    |
| <input type="checkbox"/>            | Test receiver        | ESHS 10  | 860043/016               | Rohde & Schwarz    |
| <input type="checkbox"/>            | Preamplifier         | CPA9231A | 3393                     | Schaffner          |
| <input checked="" type="checkbox"/> | Loop antenna         | HFH2-Z2  | 882964/1                 | Rohde & Schwarz    |
| <input checked="" type="checkbox"/> | Fully anechoic room  | No. 2    | 1452                     | Albatross Projects |
| <input type="checkbox"/>            | Semi-anechoic room   | No. 3    | 1453                     | Siemens            |
| <input checked="" type="checkbox"/> | Open field test site | EG 1     | 1450                     | Senton             |

## 6.2 Radiated Emission in Fully or Semi Anechoic Room

### Measurement Procedure:

|                           |   |
|---------------------------|---|
| Rules and specifications: | CFR 47 Part 15, sections 15.109, 15.215(b) and 15.249<br>IC RSS-Gen Issue 2, sections 6(a), 7.2.3.2<br>IC RSS-210 Issue 7, section A2.9 |
|---------------------------|---|

|        |            |
|--------|------------|
| Guide: | ANSI C63.4 |
|--------|------------|

Radiated emission in fully or semi anechoic room is measured in the frequency range from 30 MHz to the maximum frequency as specified in CFR 47 Part 15 section 15.33.

Measurements are made in both the horizontal and vertical planes of polarization in a fully anechoic room using a spectrum analyzer with the detector function set to peak and resolution as well as video bandwidth set to 100 kHz (below 1 GHz) or 1 MHz (above 1 GHz).

Testing up to 1 GHz is performed with a linear polarized logarithmic periodic antenna combined with a 4:1 broadband dipole ("Trilog broadband antenna"). For testing above 1 GHz horn antennas are used.

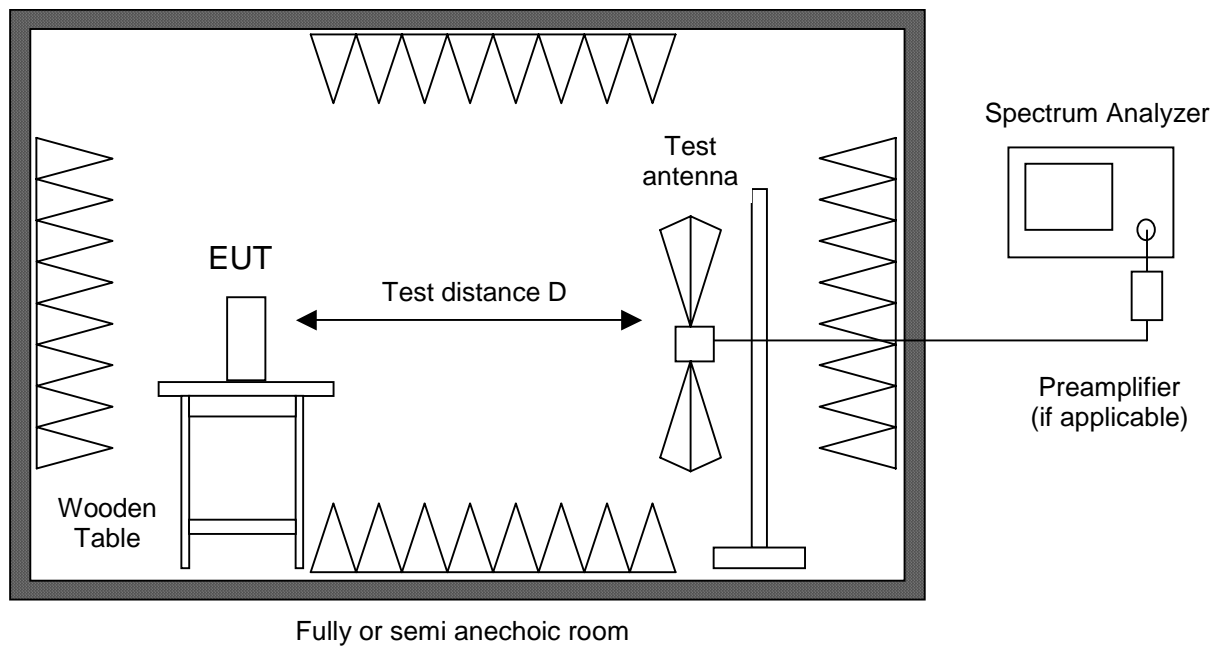
All tests below 18 GHz are performed at a test distance D of 3 meters. For higher frequencies the test distance is reduced (e.g. to 1 meter) due to the sensitivity of the measuring instrument(s) and the test results are calculated according to CFR 47 Part 15 section 15.31(f)(1) using an extrapolation factor of 20 dB/decade. If required, preamplifiers are used for the whole frequency range. Special care is taken to avoid overload, using appropriate attenuators and filters, if necessary.

If the radiated emission limits are expressed in terms of the average value of the emission there also is a peak limit corresponding to 20 dB above the maximum permitted average limit. Additionally, if pulsed operation is employed, the average field strength is determined by averaging over one complete pulse train, including blanking intervals, as specified in CFR 47 Part 15 section 15.35(c). If the pulse train exceeds 0.1 second that 0.1 second interval during which the value of the emission is at its maximum is selected for calculation. The pulse train correction is added to the peak value of the emission to get the average value.

Hand-held or body-worn devices are rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission relative to the limit and therefore shall be used for final testing.

During testing the EUT is rotated all around to find the maximum levels of emissions. Equipment and cables are placed and moved within the range of position likely to find their maximum emissions.

For final testing below 1 GHz an open field test-site is used and the plots recorded in the fully or semi anechoic room are indicated as prescans.

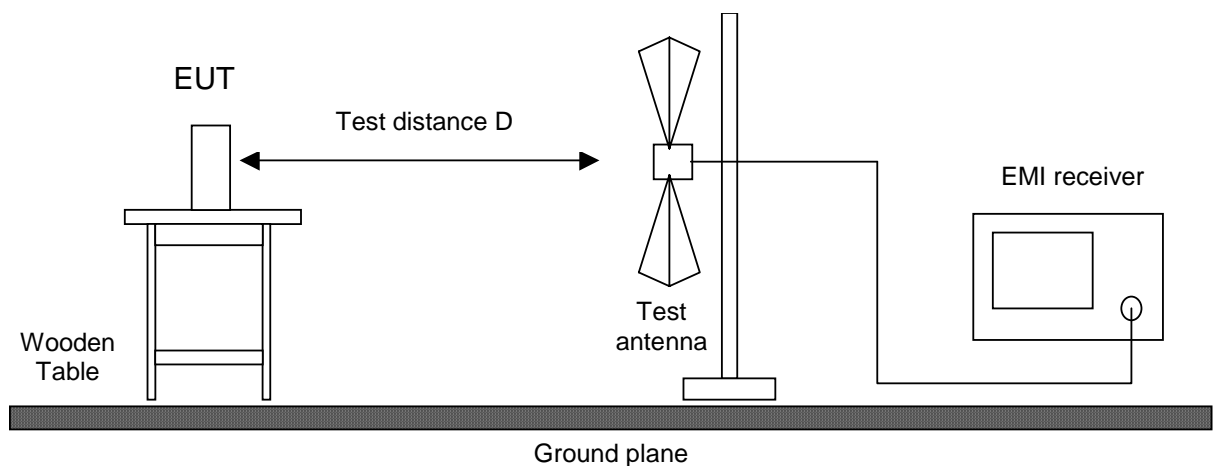


Test instruments used:

| Used                                | Type                     | Model                | Serial No. or ID         | Manufacturer       |
|-------------------------------------|--------------------------|----------------------|--------------------------|--------------------|
| <input checked="" type="checkbox"/> | Spectrum Analyzer        | FSP 30               | 100063                   | Rohde & Schwarz    |
| <input type="checkbox"/>            | Spectrum analyzer        | R 3271               | 05050023                 | Advantest          |
| <input type="checkbox"/>            | EMI test receiver        | ESMI                 | 839379/013<br>839587/006 | Rohde & Schwarz    |
| <input checked="" type="checkbox"/> | Preamplifier             | CPA9231A             | 3393                     | Schaffner          |
| <input type="checkbox"/>            | Preamplifier             | R14601               |                          | Advantest          |
| <input checked="" type="checkbox"/> | Preamplifier 1-8 GHz     | AFS3-00100800-32-LN  | 847743                   | Miteq              |
| <input type="checkbox"/>            | Preamplifier 0.5-8 GHz   | AMF-4D-005080-25-13P | 860149                   | Miteq              |
| <input checked="" type="checkbox"/> | Preamplifier 8-18 GHz    | ACO/180-3530         | 32641                    | CTT                |
| <input type="checkbox"/>            | External Mixer           | WM782A               | 845881/005               | Tektronix          |
| <input type="checkbox"/>            | Harmonic Mixer           | FS-Z30               | 843389/007               | Rohde & Schwarz    |
|                                     | Accessories              |                      |                          |                    |
| <input checked="" type="checkbox"/> | Trilog broadband antenna | VULB 9163            | 9163-188                 | Schwarzbeck        |
| <input checked="" type="checkbox"/> | Horn antenna             | 3115                 | 9508-4553                | EMCO               |
| <input type="checkbox"/>            | Horn antenna             | 3160-03              | 9112-1003                | EMCO               |
| <input type="checkbox"/>            | Horn antenna             | 3160-04              | 9112-1001                | EMCO               |
| <input type="checkbox"/>            | Horn antenna             | 3160-05              | 9112-1001                | EMCO               |
| <input type="checkbox"/>            | Horn antenna             | 3160-06              | 9112-1001                | EMCO               |
| <input type="checkbox"/>            | Horn antenna             | 3160-07              | 9112-1008                | EMCO               |
| <input type="checkbox"/>            | Horn antenna             | 3160-08              | 9112-1002                | EMCO               |
| <input checked="" type="checkbox"/> | Horn antenna             | 3160-09              | 9403-1025                | EMCO               |
| <input type="checkbox"/>            | Horn antenna             | 3160-10              | 399185                   | EMCO               |
| <input checked="" type="checkbox"/> | Fully anechoic room      | No. 2                | 1452                     | Albatross Projects |
| <input type="checkbox"/>            | Semi-anechoic room       | No. 3                | 1453                     | Siemens            |

6.3 Radiated Emission at Open Field Test Site

| Measurement Procedure:  |   |
|---|---|
| Rules and specifications:   | CFR 47 Part 15, sections 15.109, 15.215(b) and 15.249<br>IC RSS-Gen Issue 2, sections 6(a), 7.2.3.2<br>IC RSS-210 Issue 7, section A2.9 |
| Guide:  | ANSI C63.4  |
| <p>Radiated emission at open field test site is measured in the frequency range 30 MHz to 1 GHz using a biconical antenna up to 300 MHz and a logarithmic periodic antenna above. The measurement bandwidth of the test receiver is set to 120 kHz with quasi-peak detector selected.</p> <p>If the radiated emission limits are expressed in terms of the average value of the emission there also is a peak limit corresponding to 20 dB above the maximum permitted average limit. Additionally, if pulsed operation is employed, the average field strength is determined by averaging over one complete pulse train, including blanking intervals, as specified in CFR 47 Part 15 section 15.35(c). If the pulse train exceeds 0.1 second that 0.1 second interval during which the value of the emission is at its maximum is selected for calculation. The pulse train correction is added to the peak value of the emission to get the average value.</p> <p>Hand-held or body-worn devices are tested in the position producing the highest emission relative to the limit as verified by prescans in the fully anechoic room. EUT is rotated all around and receiving antenna is raised and lowered within 1 meter to 4 meters to find the maximum levels of emission. Equipment and cables are placed and moved within the range of position likely to find their maximum emissions.</p> <p>For measuring emissions of intentional radiators and receivers a test distance D of 3 meters is selected. Testing of unintentional radiators is performed at a distance of 10 meters. If limits specified for 3 meters shall be used for measurements performed at 10 meters distance the limits are calculated according to CFR 47 Part 15 section 15.31(d) and (f)(1) using an inverse linear-distance extrapolation factor of 20 dB/decade.</p> |   |



Test instruments used:

| Used                                | Type                 |      | Model  | Serial No. or ID | Manufacturer    |
|-------------------------------------|----------------------|------|--------|------------------|-----------------|
| <input checked="" type="checkbox"/> | EMI receiver         |      | ESVP   | 881120/024       | Rohde & Schwarz |
| <input checked="" type="checkbox"/> | Biconical antenna    | EG 1 | HK 116 | 842204/001       | Rohde & Schwarz |
| <input checked="" type="checkbox"/> | Log. per. antenna    | EG 1 | HL 223 | 841516/023       | Rohde & Schwarz |
| <input checked="" type="checkbox"/> | Open field test site |      | EG 1   | 1450             | Senton          |

## Test Results for Transmitter

| FCC CFR 47 Parts 2 and 15           |  |      |                    |
|-------------------------------------|--|------|--------------------|
| Section(s)                          | Test   | Page | Result             |
| 2.202(a)                            | Occupied bandwidth                                   |      | Recorded           |
| 15.204                              | Antenna requirement                                  | ---  | Integrated Antenna |
| 15.35(c)                            | Pulse train measurement for pulsed operation         | ---  | Not applicable     |
| 15.205(a)                           | Restricted bands of operation                        | 18   | Test passed        |
| 15.247(a)(1)(i)                     | Channel Bandwidth                                    |      | Not performed      |
| 15.247(a)(1)                        | Hopping channel separation                           |      | Not performed      |
| 15.247(a)(1)(i)                     | Number of hopping frequencies used                   |      | Not performed      |
| 15.247(a)(1)(i)                     | Time occupancy on any channel                        |      | Not performed      |
| 15.247(b)(2)                        | Maximum peak output power                            |      | Not performed      |
| 15.207                              | Conducted AC powerline emission<br>150 kHz to 30 MHz |      | Not applicable     |
| 15.205(b)<br>15.247                 | Radiated emission<br>9 kHz to 30 MHz                 | 19   | Not performed      |
| 15.205(b)<br>15.215(b)<br>15.247(d) | Radiated emission<br>30 MHz to 25 GHz                | 20   | Test passed        |
| 15.247(i)<br>2.1093                 | RF exposure requirement                              |      | Not performed      |



### IC RSS-Gen Issue 2

| Section(s) | Test  | Page | Result                                    |
|------------|---|------|---|
| 4.8        | Transmitter output power (conducted)                                | ---  | Not applicable                            |
| 4.6.1      | Occupied Bandwidth  |      | Recorded                                  |
| 4.5        | Pulsed operation  | ---  | Not applicable                            |
| 7.2.2      | Transmitter AC power lines conducted emissions<br>150 kHz to 30 MHz |      | Not applicable                            |
| 5.5        | Exposure of Humans to RF Fields                                     |      | Exempted from<br>SAR and RF<br>evaluation |

### IC RSS-210 Issue 7

| Section(s)               | Test   | Page | Result             |
|--------------------------|--|------|--------------------|
| 2.2(a)                   | Restricted bands and unwanted emission frequencies | 18   | Test passed        |
| 7.1.4                    | Antenna requirement                                | ---  | Integrated antenna |
| A8.1(c)                  | Channel bandwidth                                  |      | Not performed      |
| A8.1(b)                  | Hopping channel separation                         |      | Not performed      |
| A8.1(c)                  | Number of hopping frequencies used                 |      | Not performed      |
| A8.1(c)                  | Time occupancy on any channel                      |      | Not performed      |
| A8.4(1)                  | Maximum output power                               |      | Not performed      |
| 2.2(b)(c)<br>2.6<br>A8.5 | Unwanted emissions<br>9 kHz to 30 MHz              | 19   | Test passed        |
| 2.2(b)(c)<br>2.6<br>A8.5 | Unwanted emissions<br>30 MHz to 25 GHz             | 20   | Test passed        |

## 6.4 Restricted Bands of Operation and Band Edge Compliance

|                           |  |
|---------------------------|--|
| Rules and specifications: | CFR 47 Part 15, section 15.205(a)<br>IC RSS-210 Issue 7, section 2.2(a)  |
| Guide:                    | ANSI C63.4   |
| Limit:                    | Only spurious emissions are permitted in any of the frequency bands listed in CFR 47 Part 15, section 15.205(a) or IC RSS-210 Issue 7, section 2.2(a). |
| Measurement procedure:    |  |

|                |                                  |
|----------------|----------------------------------|
| Comment:       |                                  |
| Date of test:  | 21 November 2008                 |
| Test site:     | Fully anechoic room, cabin no. 2 |
| Test distance: | 3 meters                         |

|              |  |
|--------------|--|
| Test Result: | Test passed, see test charts for details |
|--------------|--|

## 6.5 Radiated Emission Measurement 9 kHz to 30 MHz

|   |  |                                    |   |                                 |
|---|--|------------------------------------|---|---------------------------------|
| Rules and specifications:   | CFR 47 Part 15, sections 15.205 and 15.209<br>IC RSS-210 Issue 7, sections 2.2 and 2.6 |                                    |   |                                 |
| Guide:  | ANSI C63.4   |                                    |   |                                 |
| Limit:  | Frequency of Emission (MHz)  | Field Strength ( $\mu\text{V/m}$ ) | Field Strength ( $\text{dB}\mu\text{V/m}$ ) | Measurement Distance d (meters) |
|   | 0.009 - 0.490  | $2400/F(\text{kHz})$               | $67.6 - 20 \cdot \log(F(\text{kHz}))$       | 300                             |
|   | 0.490 - 1.705  | $24000/F(\text{kHz})$              | $87.6 - 20 \cdot \log(F(\text{kHz}))$       | 30                              |
|   | 1.705 - 30.000   | 30                                 | 29.5  | 30                              |
| Additionally, the level of any unwanted emissions shall not exceed the level of the fundamental emission. |  |                                    |   |                                 |
| Measurement procedure:  | Radiated Emission Measurement 9 kHz to 30 MHz (6.1)                                    |                                    |   |                                 |

|               |                      |
|---------------|----------------------|
| Comment:      | ---                  |
| Date of test: | 21 November 2008     |
| Test site:    | Open field test site |

All emissions show more than 20 dB margin to the limit, no values recorded.

|              |             |
|--------------|-------------|
| Test Result: | Test passed |
|--------------|-------------|

## 6.6 Radiated Emission Measurement 30 MHz to 25 GHz

|   |   |                       |                         |
|---|---|-----------------------|-------------------------|
| Rules and specifications:   | CFR 47 Part 15, sections 15.215(b) and 15.247<br>IC RSS-210 Issue 7, section A8                           |                       |                         |
| Guide:  | ANSI C63.4  |                       |                         |
| Limit:  | Frequency of Emission (MHz)   | Field Strength (µV/m) | Field Strength (dBµV/m) |
|   | 30 - 88   | 100                   | 40.0                    |
|   | 88 - 216  | 150                   | 43.5                    |
|   | 216 - 960   | 200                   | 46.0                    |
|   | Above 960   | 500                   | 54.0                    |
| Additionally, the level of any unwanted emissions shall not exceed the level of the fundamental emission. |   |                       |                         |
| Measurement procedures:   | Radiated Emission in Fully or Semi Anechoic Room (6.2)<br>Radiated Emission at Open Field Test Site (6.3) |                       |                         |

|              |             |
|--------------|-------------|
| Test Result: | Test passed |
|--------------|-------------|

|                |  |
|----------------|--|
| Comment:       | Low Channel  |
| Mode:          | CW TX  |
| Date of test:  | 21 November, 2008  |
| Test site:     | Frequencies ≤ 1 GHz: Open field test site<br>Frequencies > 1 GHz: Fully anechoic room, cabin no. 2 |
| Test distance: | Frequencies ≤ 8.2 GHz: 3 meters<br>Frequencies > 8.2 GHz: 1 meters                                 |

| Frequency (MHz) | Antenna Polarization | Detector   | Receiver Reading (dBµV) | Correction Factor (dB/m) | Pulse Train Correction (dB) | Final Value (dBµV/m) | Limit (dBµV/m) | Margin (dB) |
|-----------------|----------------------|------------|-------------------------|--------------------------|-----------------------------|----------------------|----------------|-------------|
| 264,74          | Vertical             | Quasi-Peak | 15,16                   | 14,11                    | 0                           | 29,27                | 46,0           | 16,7        |
|                 |                      |            |                         |                          |                             |                      |                |             |
|                 |                      |            |                         |                          |                             |                      |                |             |

### Sample calculation of final values:

$$\text{Final Value (dBµV/m)} = \text{Reading Value (dBµV)} + \text{Correction Factor (dB/m)} + \text{Pulse Train Correction (dB)}$$

|                |  |
|----------------|--|
| Comment:       | Middle Channel   |
| Mode:          | CW TX  |
| Date of test:  | 21 November, 2008  |
| Test site:     | Frequencies ≤ 1 GHz: Open field test site<br>Frequencies > 1 GHz: Fully anechoic room, cabin no. 2 |
| Test distance: | Frequencies ≤ 8.2 GHz: 3 meters<br>Frequencies > 8.2 GHz: 1 meters                                 |

| Frequency<br>(MHz) | Antenna<br>Polarization | Detector | Receiver<br>Reading<br>(dBμV) | Correction<br>Factor<br>(dB/m) | Pulse Train<br>Correction<br>(dB) | Final<br>Value<br>(dBμV/m) | Limit<br>(dBμV/m) | Mar<br>gin<br>(dB) |
|--------------------|-------------------------|----------|-------------------------------|--------------------------------|-----------------------------------|----------------------------|-------------------|--------------------|
| 16353,0            | Horizontal              | Peak     | -8,59                         | 52,54                          | 0                                 | 43,95                      | 54,0              | 10.1               |
|                    |                         |          |                               |                                |                                   |                            |                   |                    |
|                    |                         |          |                               |                                |                                   |                            |                   |                    |

**Sample calculation of final values:**

$$\text{Final Value (dB}\mu\text{V/m)} = \text{Reading Value (dB}\mu\text{V)} + \text{Correction Factor (dB/m)} + \text{Pulse Train Correction (dB)}$$

|                |  |
|----------------|--|
| Comment:       | Highest Channel  |
| Mode:          | CW TX  |
| Date of test:  | 21 November, 2008  |
| Test site:     | Frequencies ≤ 1 GHz: Open field test site<br>Frequencies > 1 GHz: Fully anechoic room, cabin no. 2 |
| Test distance: | Frequencies ≤ 8.2 GHz: 3 meters<br>Frequencies > 8.2 GHz: 1 meters                                 |

| Frequency<br>(MHz) | Antenna<br>Polarization | Detector   | Receiver<br>Reading<br>(dBμV) | Correction<br>Factor<br>(dB/m) | Pulse Train<br>Correction<br>(dB) | Final<br>Value<br>(dBμV/m) | Limit<br>(dBμV/m) | Mar<br>gin<br>(dB) |
|--------------------|-------------------------|------------|-------------------------------|--------------------------------|-----------------------------------|----------------------------|-------------------|--------------------|
| 262,800            | Horizontal              | Quasi-Peak | 19,64                         | 14,04                          | 0                                 | 33,68                      | 46,0              | 12,3               |
| 398,600            | Horizontal              | Quasi-Peak | 16,51                         | 17,20                          | 0                                 | 33,71                      | 46,0              | 12,3               |
| 487,840            | Horizontal              | Quasi-Peak | 14,76                         | 18,62                          | 0                                 | 33,38                      | 46,0              | 12,6               |
|                    |                         |            |                               |                                |                                   |                            |                   |                    |

#### Sample calculation of final values:

$$\text{Final Value (dB}\mu\text{V/m)} = \text{Reading Value (dB}\mu\text{V)} + \text{Correction Factor (dB/m)} + \text{Pulse Train Correction (dB)}$$

## 7 Referenced Regulations

All tests were performed with reference to the following regulations and standards:

|                                     |                          |   |  |
|-------------------------------------|--------------------------|---|--|
| <input checked="" type="checkbox"/> | CFR 47 Part 2            | Code of Federal Regulations Part 2 (Frequency allocation and radio treaty matters; General rules and regulations) of the Federal Communication Commission (FCC)   | October 1, 2006                                      |
| <input checked="" type="checkbox"/> | CFR 47 Part 15           | Code of Federal Regulations Part 15 (Radio Frequency Devices) of the Federal Communication Commission (FCC)   | May 4, 2007  |
| <input checked="" type="checkbox"/> | ANSI C63.4               | American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz                                     | December 11, 2003<br>(published on January 30, 2004) |
| <input checked="" type="checkbox"/> | RSS-Gen                  | Radio Standards Specification RSS-Gen Issue 2 containing General Requirements and Information for the Certification of Radiocommunication Equipment, published by Industry Canada                       | June 2007  |
| <input checked="" type="checkbox"/> | RSS-210                  | Radio Standards Specification RSS-210 Issue 7 for Low Power Licence-Exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment, published by Industry Canada                         | June 2007  |
| <input type="checkbox"/>            | RSS-310                  | Radio Standards Specification RSS-310 Issue 1 for Low Power Licence-Exempt Radiocommunication Devices (All Frequency Bands): Category II Equipment, published by Industry Canada                        | September 2005                                       |
| <input checked="" type="checkbox"/> | RSS-102                  | Radio Standards Specification RSS-102 Issue 2: Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)  | November 2005  |
| <input type="checkbox"/>            | ICES-003                 | Interference-Causing Equipment Standard ICES-003 Issue 4 for Digital Apparatus, published by Industry Canada  | February 7, 2004                                     |
| <input checked="" type="checkbox"/> | CISPR 22                 | Third Edition of the International Special Committee on Radio Interference (CISPR), Pub. 22, "Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement" | 1997   |
| <input type="checkbox"/>            | CAN/CSA-CEI/IEC CISPR 22 | Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment  | 2002   |



---

|                                     |        |  |                 |
|-------------------------------------|--------|--|-----------------|
| <input checked="" type="checkbox"/> | TRC-43 | Notes Regarding Designation of Emission (Including Necessary Bandwidth and Classification), Class of Station and Nature of Service, published by Industry Canada | October 9, 1982 |
|-------------------------------------|--------|--|-----------------|





## 8 Calibration Status



| Test Equipment List with Calibration Data |  |
|---|--|
| Test report number(s):<br>55147-081184    | <br>Page 1 of 1<br>Date of test:<br>09/2008 |

| Type                                 | Inv.-No. | Type Designation    | Serial Number | Manufacturer          | Calibration Organization | Date of Calibration<br>Last | Next    |
|--------------------------------------|----------|---------------------|---------------|-----------------------|--------------------------|-----------------------------|---------|
| Test receiver                        | 1025     | ESVP                | 881120/024    | Rohde & Schwarz       | Rohde & Schwarz          | 03/2008                     | 09/2009 |
| Test receiver                        | 1028     | ESHS10              | 860043/016    | Rohde & Schwarz       | Rohde & Schwarz          | 04/2007                     | 10/2008 |
| Test receiver                        | 1569     | ESMI                | 839379/013    | Rohde & Schwarz       | Rohde & Schwarz          | 04/2007                     | 10/2009 |
| EMI Test Receiver                    | 1711     | ESPI7               | 836914/0002   | Rohde & Schwarz       | Rohde & Schwarz          | 03/2007                     | 09/2008 |
| Spectrum analyser                    | 1666     | FSP30               | 100063        | Rohde & Schwarz       | Rohde & Schwarz          | 10/2007                     | 04/2009 |
| Preamplifier                         | 1142     | R14601              | 13120026      | Advantest             | Senton                   | 04/2008                     | 04/2010 |
| Preamplifier                         | 1651     | CPA9231A            | 3393          | Schaffner Electrotest | Senton                   | 05/2008                     | 11/2009 |
| Preamplifier                         | 1684     | AFS3-00100800-32-LN | 847743        | MITEQ                 | Senton                   | 05/2008                     | 11/2009 |
| V-network                            | 1059     | ESH3-Z5             | 894785/005    | Rohde & Schwarz       | Rohde & Schwarz          | 12/2005                     | 12/2008 |
| V-network                            | 1060     | ESH3-Z5             | 862770/021    | Rohde & Schwarz       | Rohde & Schwarz          | 01/2007                     | 01/2010 |
| V-network                            | 1218     | ESH3-Z5             | 830952/025    | Rohde & Schwarz       | Rohde & Schwarz          | 07/2008                     | 07/2011 |
| Loop antenna                         | 1016     | HFH2-Z2             | 882964/0001   | Rohde & Schwarz       | Rohde & Schwarz          | 12/2007                     | 06/2009 |
| Double ridged waveguide horn antenna | 1516     | 3115                | 9508-4553     | EMCO Elektronik       | ARC                      | 05/2008                     | 05/2011 |
| Biconical Antenna                    | 1518     | HK116               | 842204/01     | Rohde & Schwarz       | Rohde & Schwarz          | 06/2008                     | 12/2009 |
| Logarithmic-periodic antenna         | 1519     | HL223               | 841516/23     | Rohde & Schwarz       | Rohde & Schwarz          | 06/2008                     | 12/2009 |
| TRILOG Broadband Antenna             | 1722     | VULB 9163           | 9163-188      | Schwarzbeck           | Schwarzbeck              | 04/2008                     | 10/2009 |
| TRILOG Broadband Antenna             | 1802     | VULB 9163           | 9163-214      | Schwarzbeck           | Schwarzbeck              | 03/2008                     | 09/2009 |

Note: Date of next calibration contains maximum tolerance of six months for devices with calibration cycles less than three years.

## 9 Revision History

| Revision History |              |                  |                      |
|------------------|--------------|------------------|----------------------|
| <i>Edition</i>   | <i>Date</i>  | <i>Issued by</i> | <i>Modifications</i> |
| 1                | 05 May. 2008 | J. Roidt         |                      |



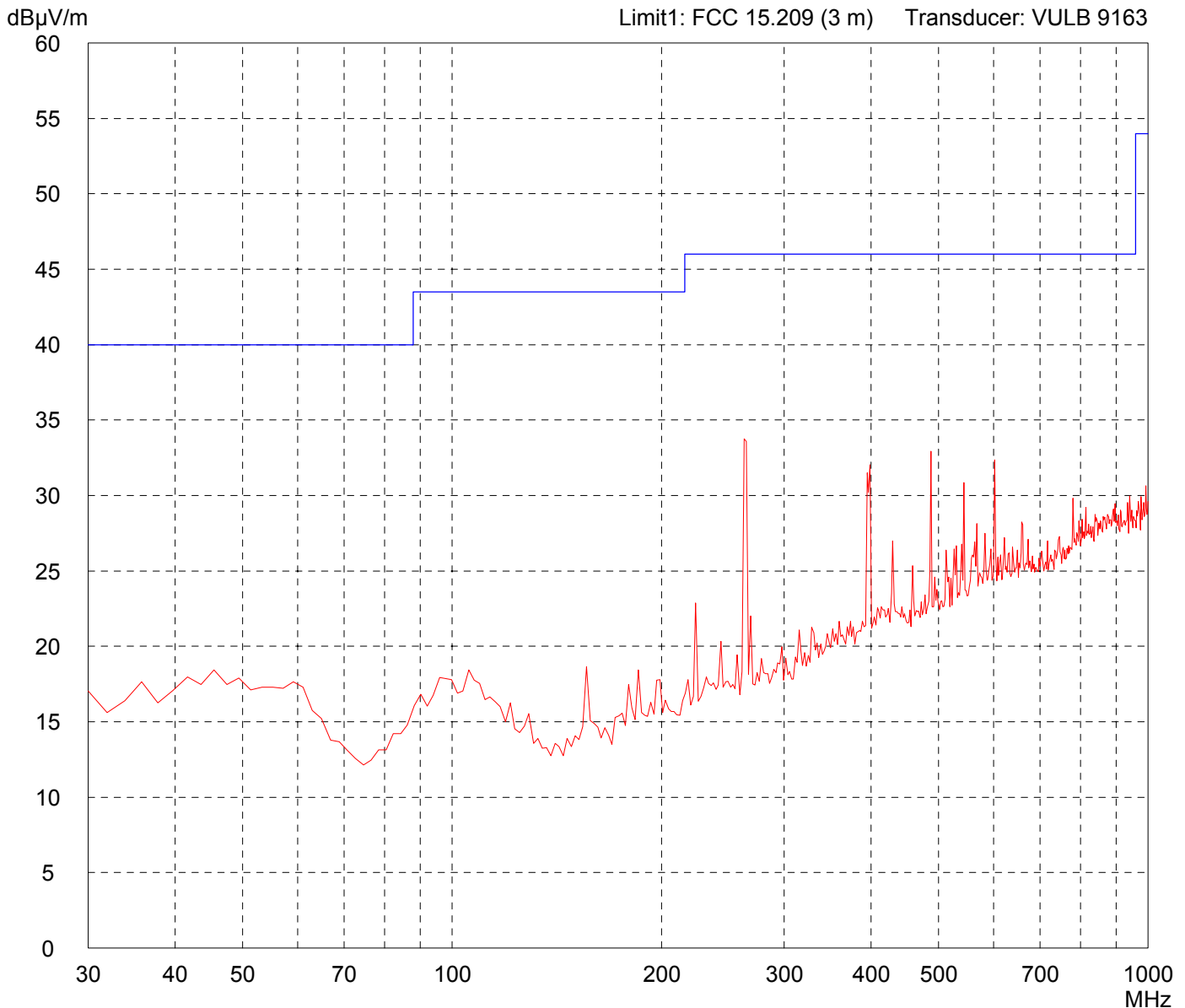
## 10 Charts taken during testing

# Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |  |
|--|--|
| <b>Model:</b><br><b>Maserati</b>   | <b>Comment:</b><br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| <b>Serial no.:</b><br><b>68/08/EMC</b>   |  |
| <b>Applicant:</b><br><b>Fakt S.r.l.</b>  |  |
| <b>Test site:</b><br><b>Fully anechoic room, cabin no. 2</b>                         |  |
| <b>Tested on:</b><br><b>Test distance 3 metres</b><br><b>Horizontal Polarization</b> |  |
| <b>Date of test:</b><br><b>11/21/2008</b>  | <b>Operator:</b><br><b>J. Roidt</b>  |
| <b>Test performed:</b><br><b>automatically</b>                                       | <b>File name:</b><br><b>default.emi</b>                                    |

|                                 |   |
|---------------------------------|---|
| <b>Detector:</b><br><b>Peak</b> | <b>List of values:</b><br><b>10 dB Margin</b> |
|                                 | <b>50 Subranges</b>                           |



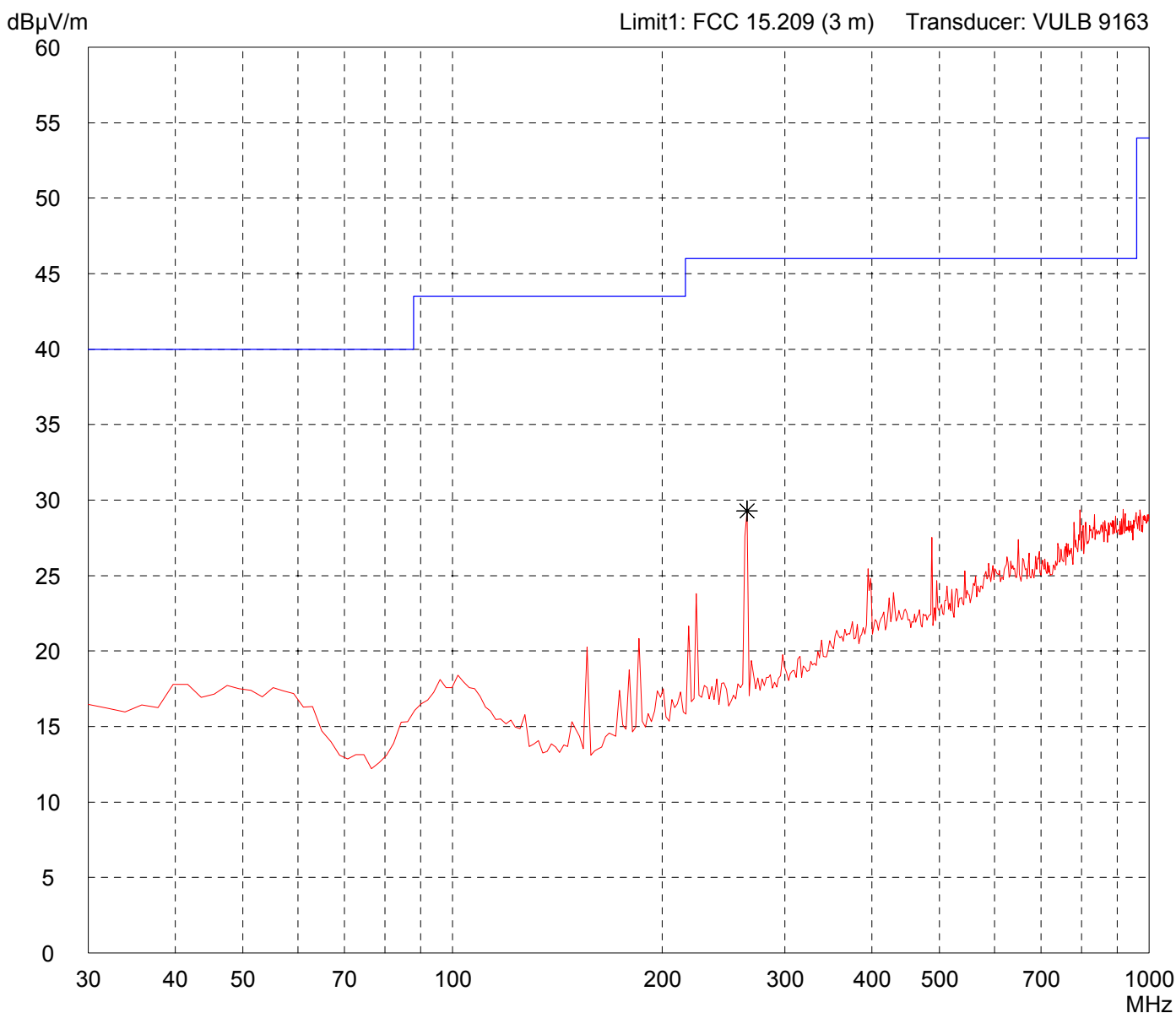
|                |  |
|----------------|--|
| <b>Result:</b> | <b>Project file:</b><br><b>55147-81414</b> |
|                | <b>Page    of    Pages</b>                 |

# Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                       |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                      |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                 |   |
| Tested on:<br><b>Test distance 3 metres<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                    | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                               | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



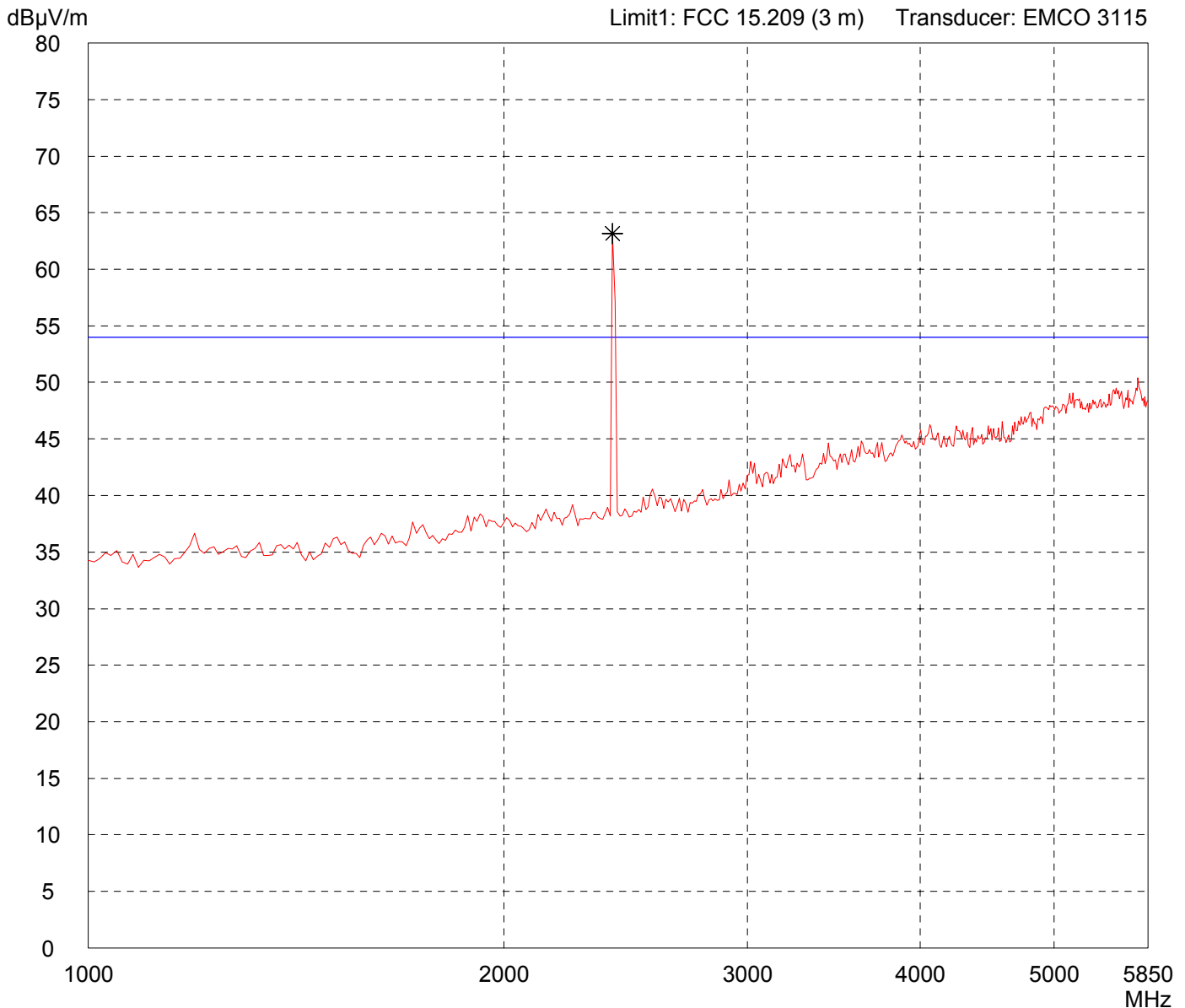
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 1 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>   |   |
| Applicant:<br><b>Fakt S.r.l.</b>  |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |   |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



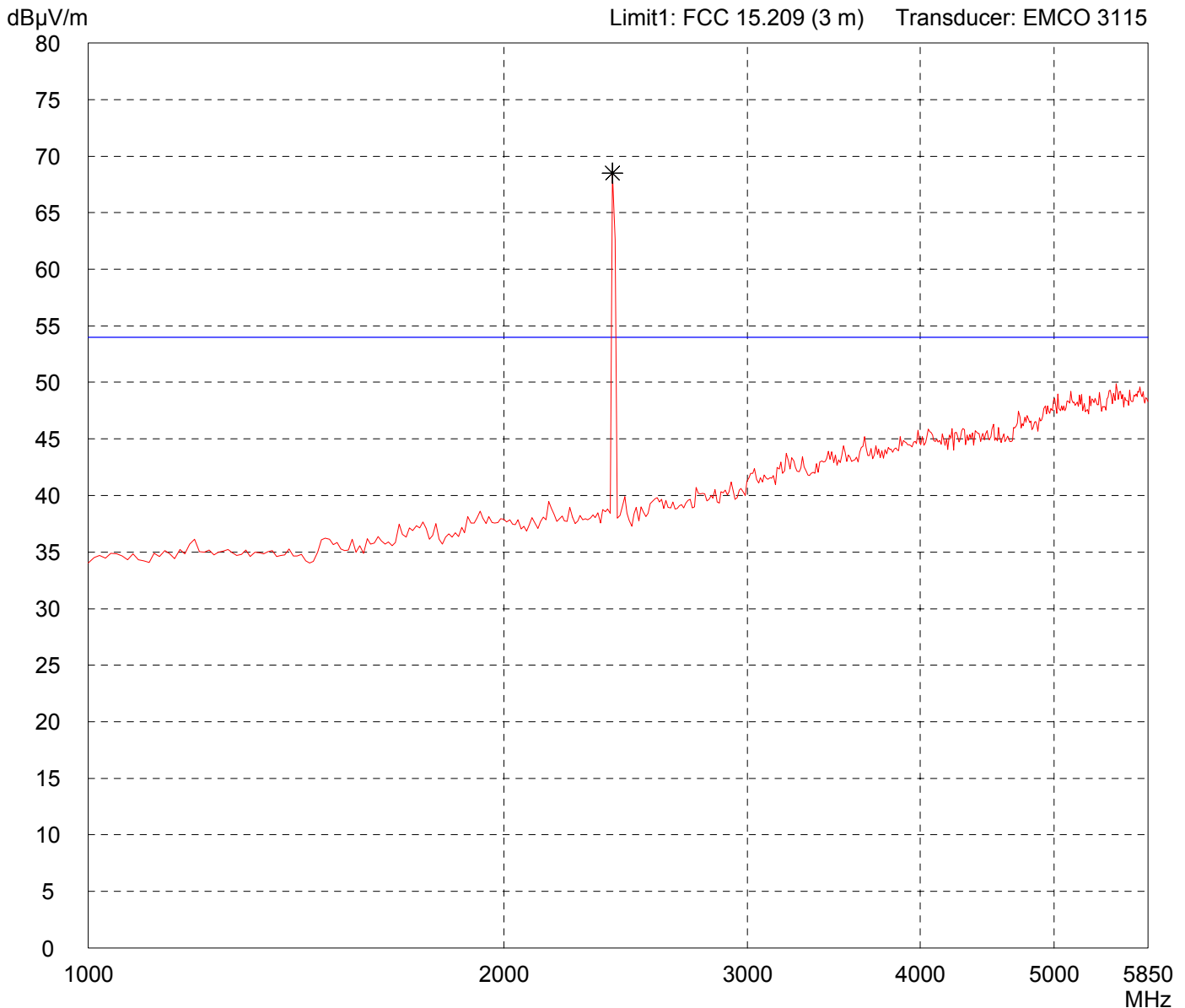
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 1 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                       |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                      |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                 |   |
| Tested on:<br><b>Test distance 3 metres<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                    | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                               | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

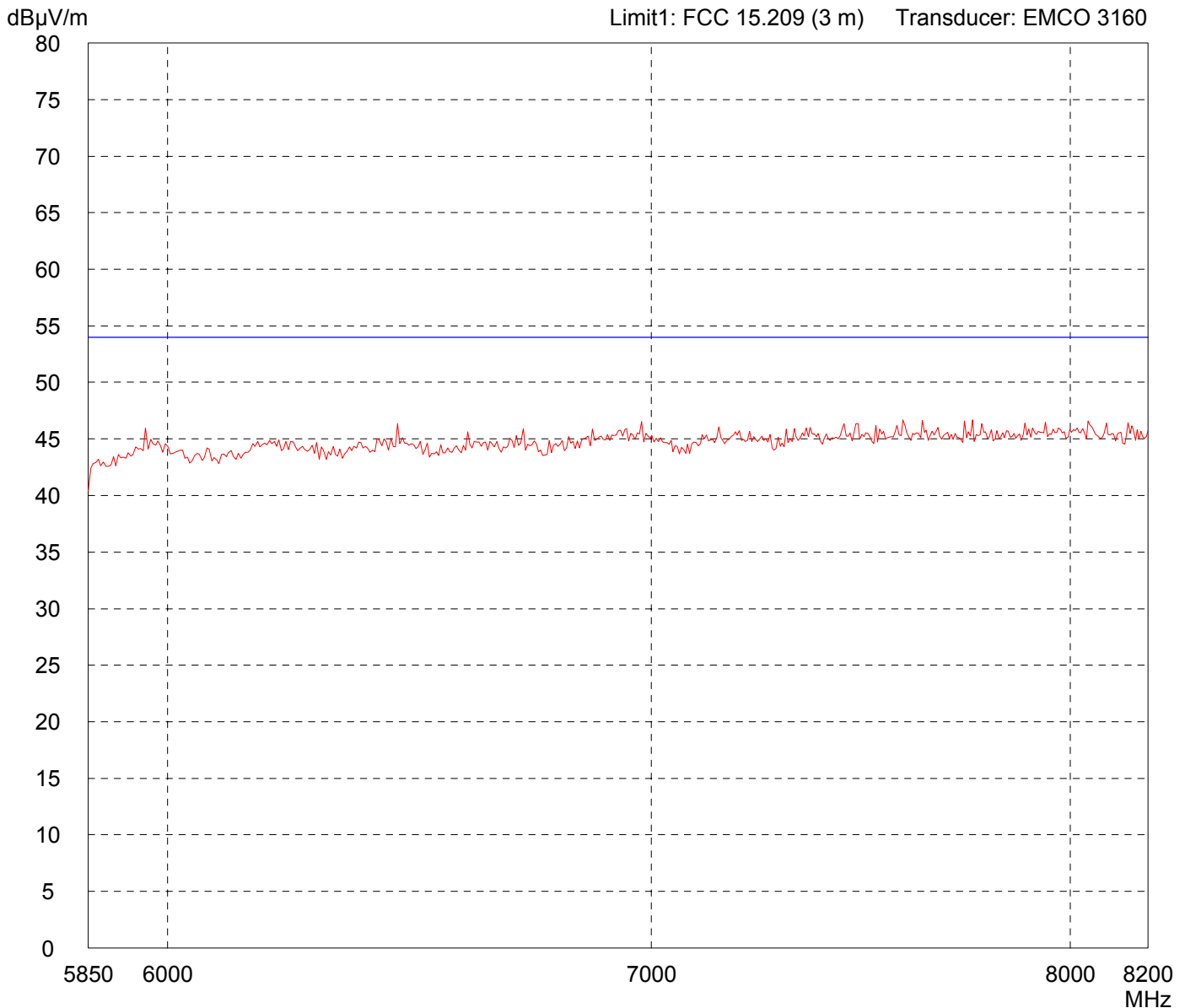


# Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>   |   |
| Applicant:<br><b>Fakt S.r.l.</b>  |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |   |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



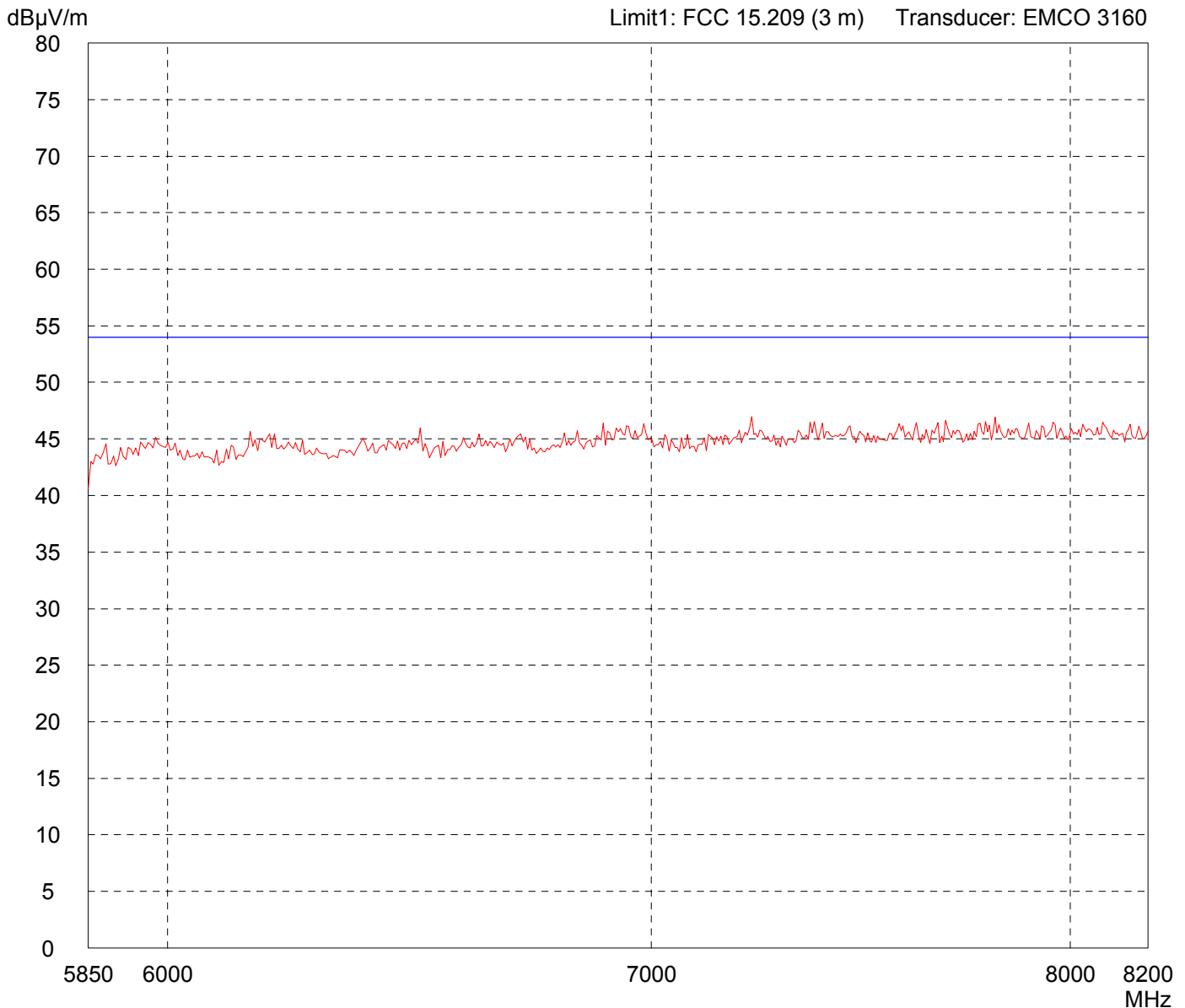
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                       |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                      |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                 |   |
| Tested on:<br><b>Test distance 3 metres<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                    | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                               | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



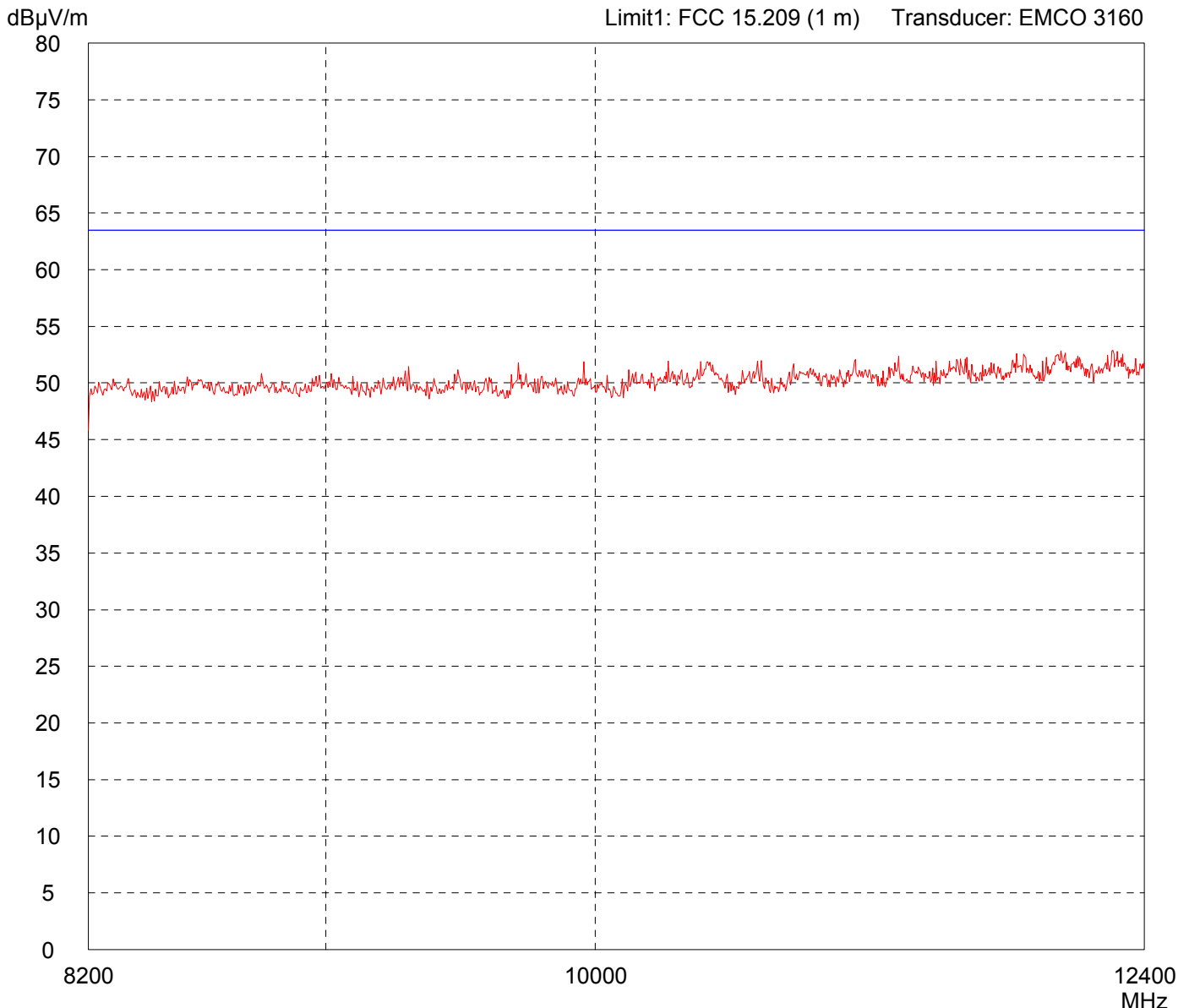
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |   |
|--|---|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>  |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                       |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                  |   |
| Tested on:<br><b>Test distance 1 meter<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                     | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                                | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><div style="display: flex; justify-content: space-between;"> <span><b>10 dB Margin</b></span> <span><b>50 Subranges</b></span> </div> |
|--------------------------|--|



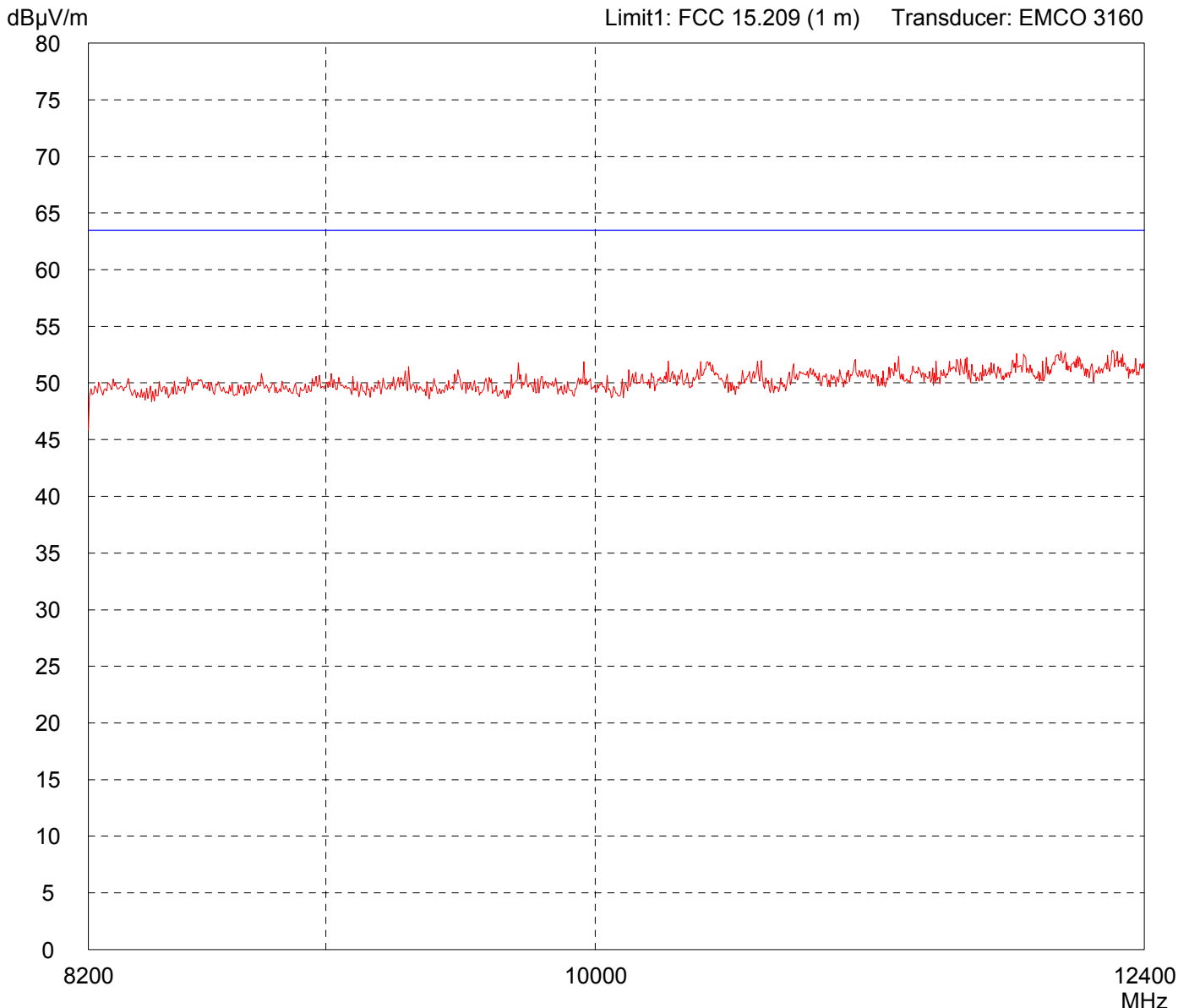
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |   |
|--|---|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>  |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                       |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                  |   |
| Tested on:<br><b>Test distance 1 meter<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                     | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                                | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><div style="display: flex; justify-content: space-between;"> <span><b>10 dB Margin</b></span> <span><b>50 Subranges</b></span> </div> |
|--------------------------|--|



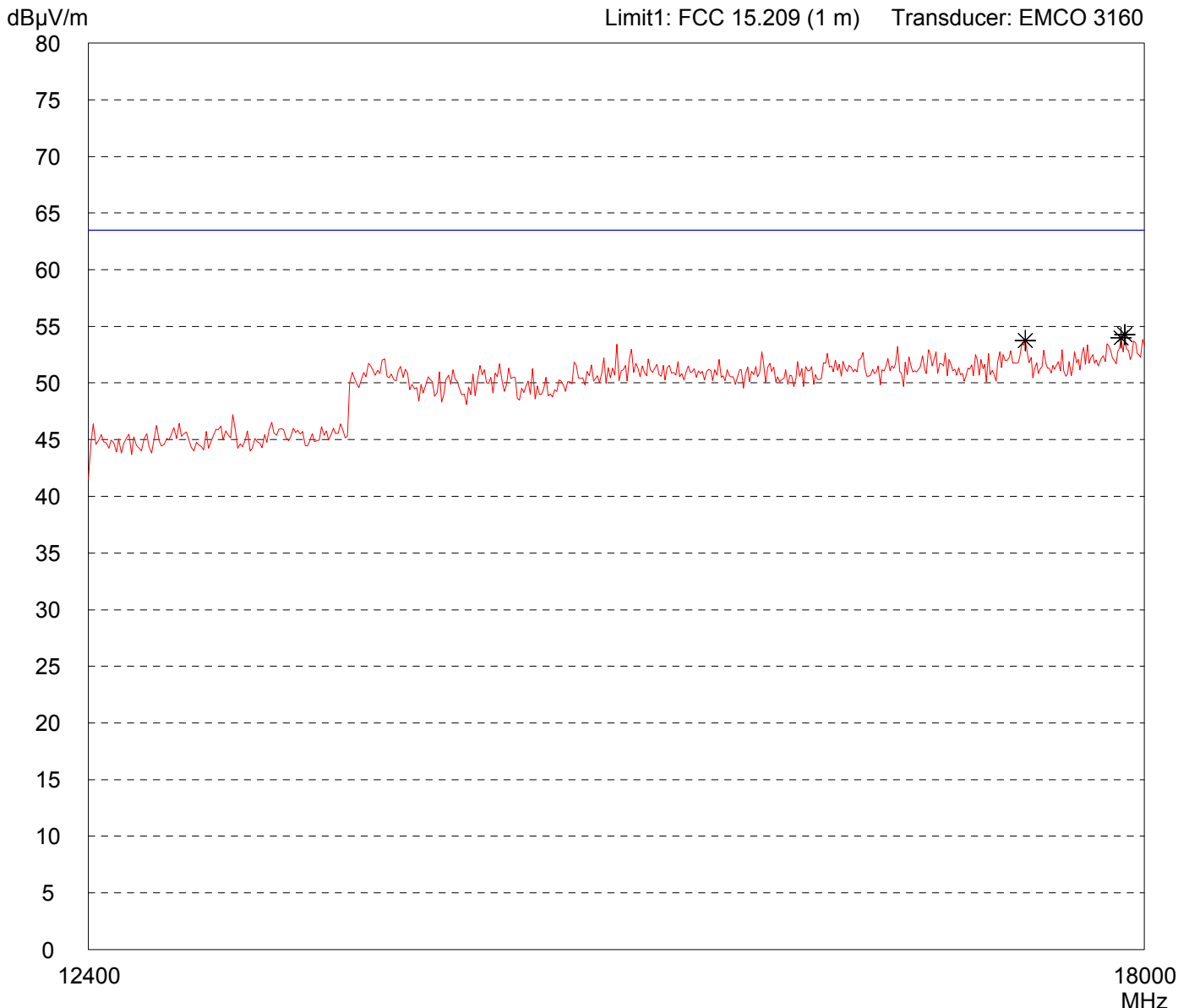
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 12.4 GHz - 18 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |   |
|--|---|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>  |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                       |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                  |   |
| Tested on:<br><b>Test distance 1 meter<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                     | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>by hand</b>                                      | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><div style="display: flex; justify-content: space-between;"> <span><b>10 dB Margin</b></span> <span><b>50 Subranges</b></span> </div> |
|--------------------------|--|



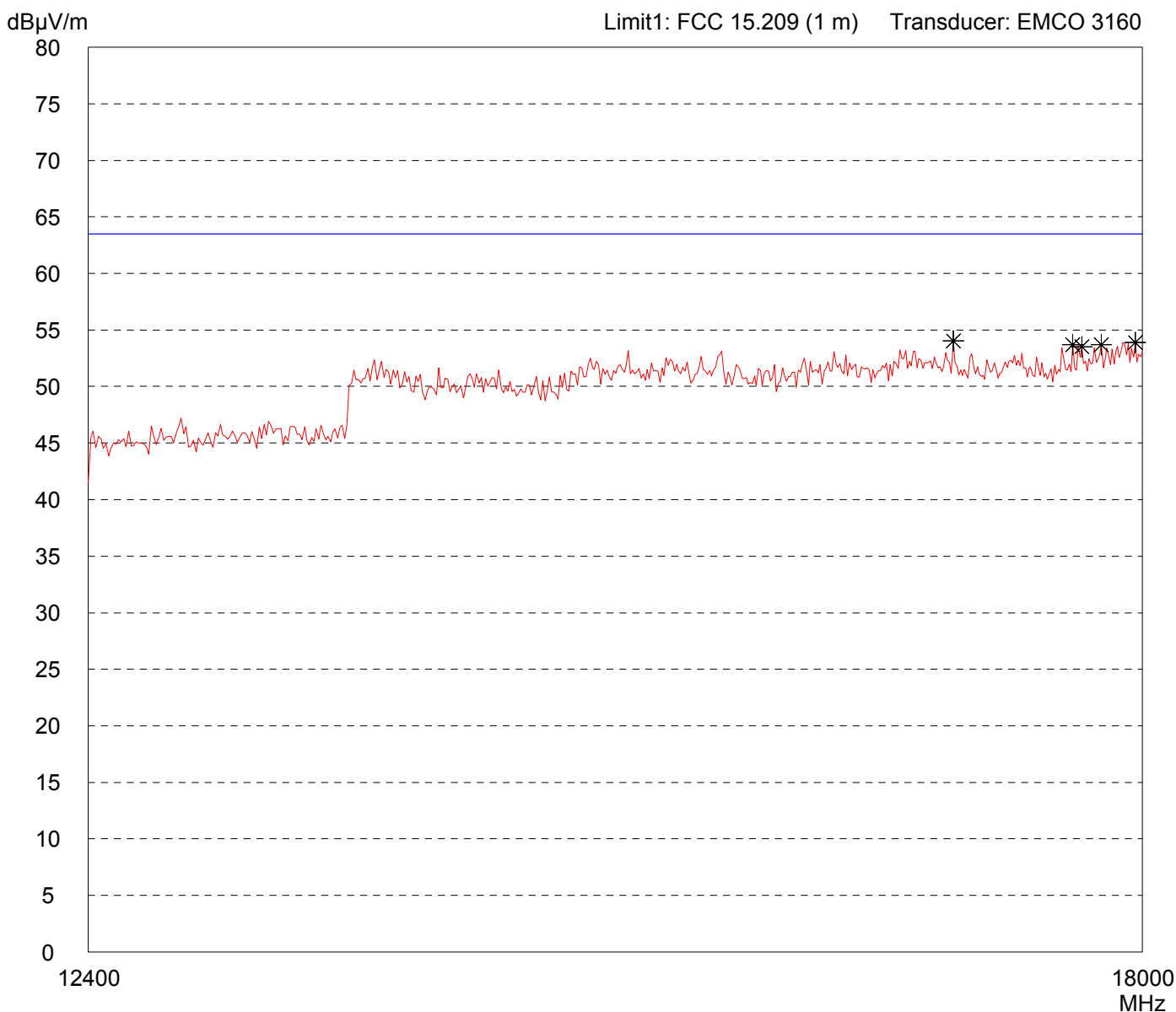
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 12.4 GHz - 18 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |   |
|--|---|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2402 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                      |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                     |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                |   |
| Tested on:<br><b>Test distance 1 meter<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                   | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>by hand</b>                                    | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>10 dB Margin</b> |
|                          | <b>50 Subranges</b>                    |



|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

## Spurious emissions according to FCC Rules

Model:  
Maserati

Serial No.:  
68/08/EMC

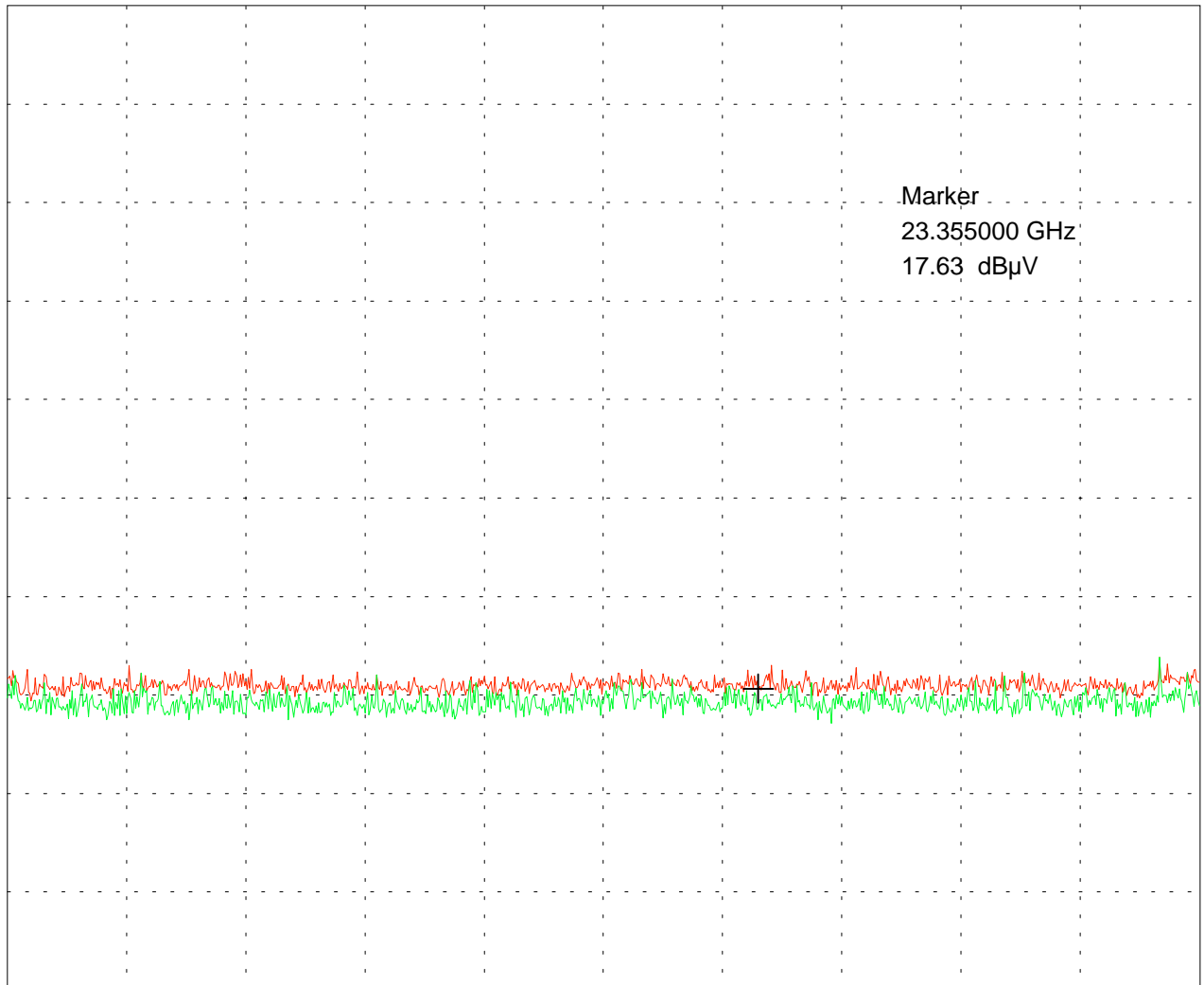
Applicant:  
Fakt s.r.l.

Mode:  
- TX at 2402 MHz

- Horizontal and vertical polarisation displayed in two traces

Ref.Level 87 dB $\mu$ V  
10 dB/Div.

ATT 0 dB



Start 18.000 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 26.500 GHz  
SWP 2.60 s

Tested by:  
Johann Roidt

Date:  
11/21/2008

Project-No.:  
55147-081414

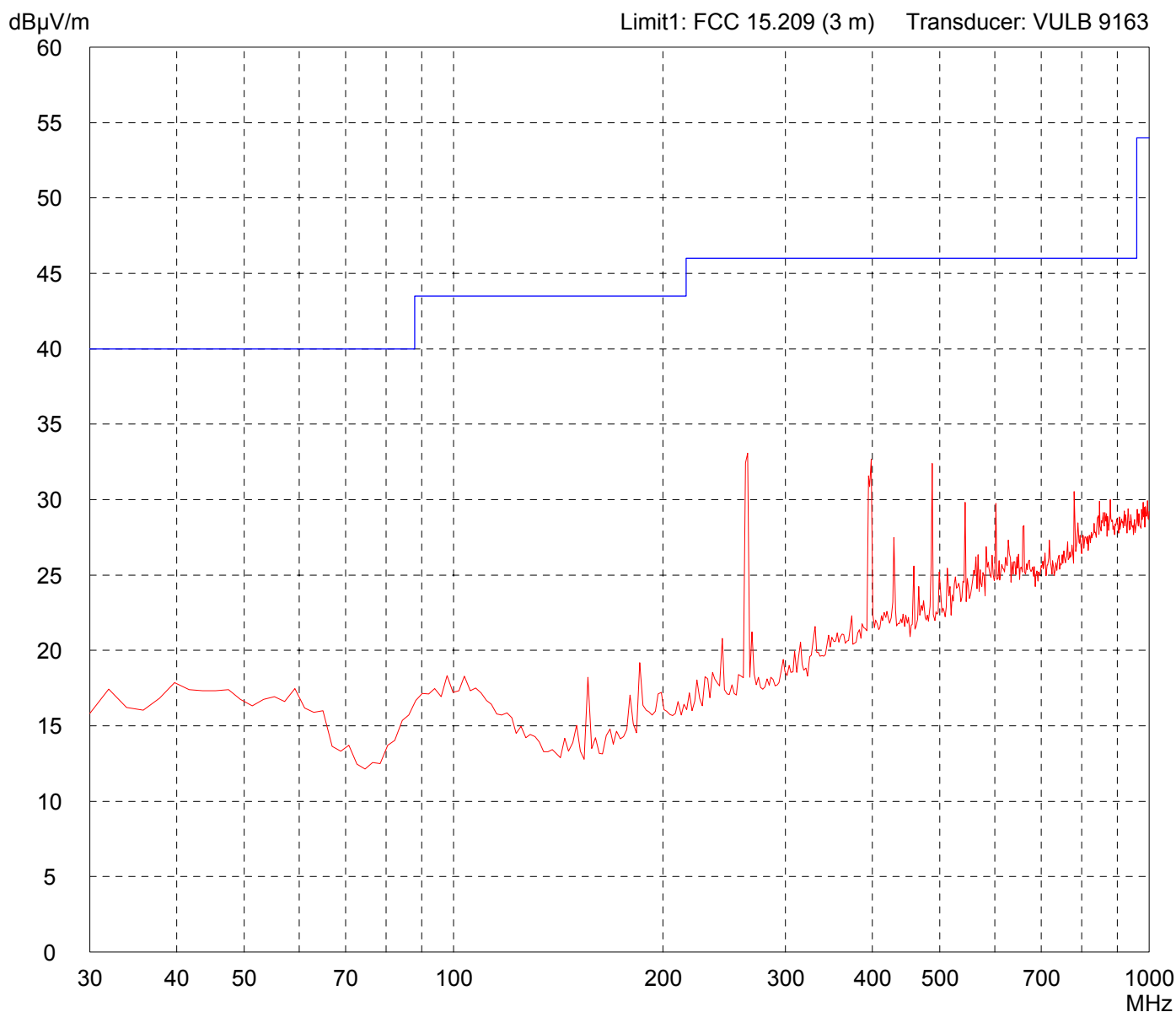
Page of pages

# Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>   |   |
| Applicant:<br><b>Fakt S.r.l.</b>  |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |   |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>10 dB Margin</b> |
|                          | <b>50 Subranges</b>                    |



|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

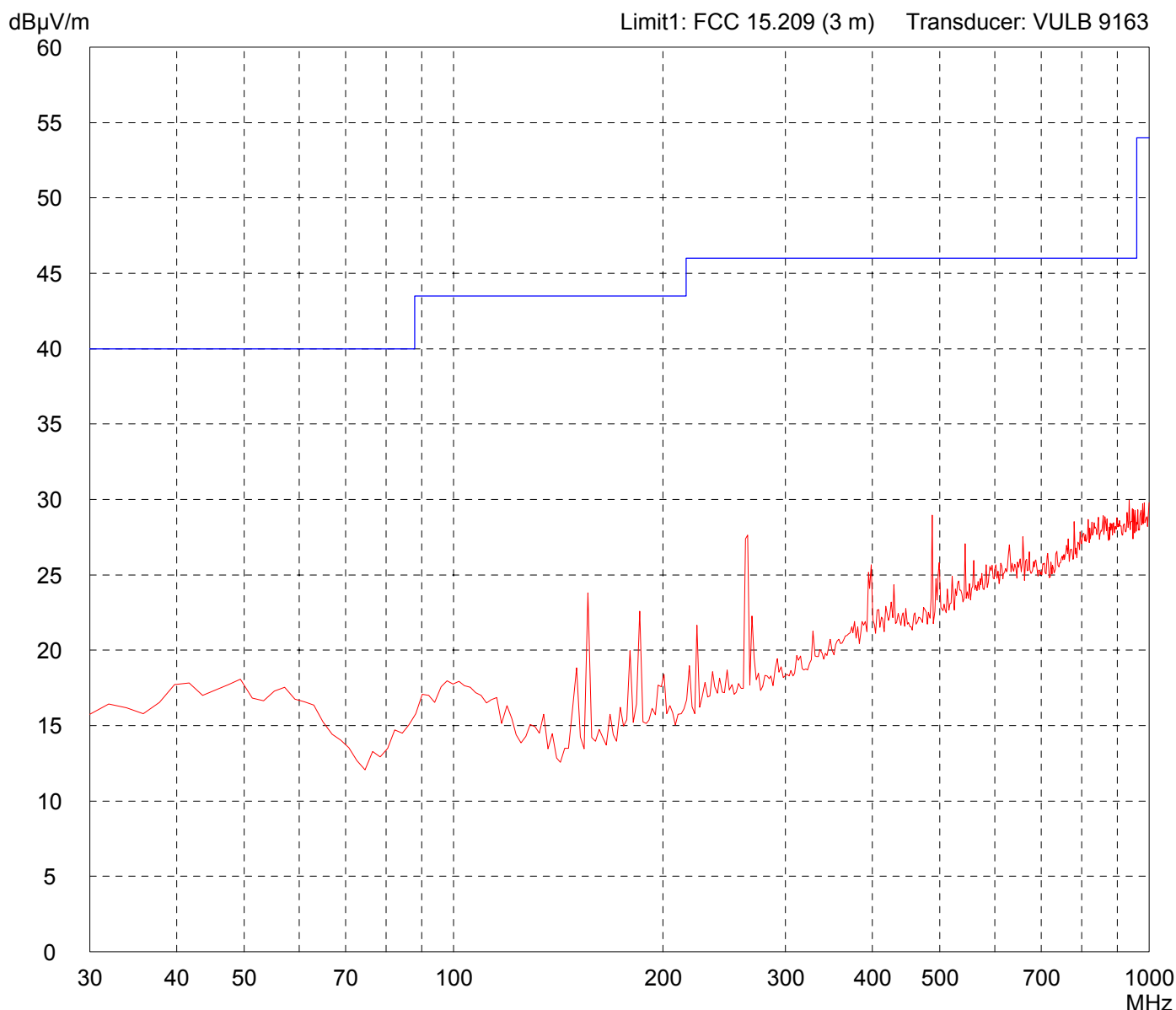


# Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                       |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                      |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                 |   |
| Tested on:<br><b>Test distance 3 metres<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                    | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                               | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>10 dB Margin</b> |
|                          | <b>50 Subranges</b>                    |



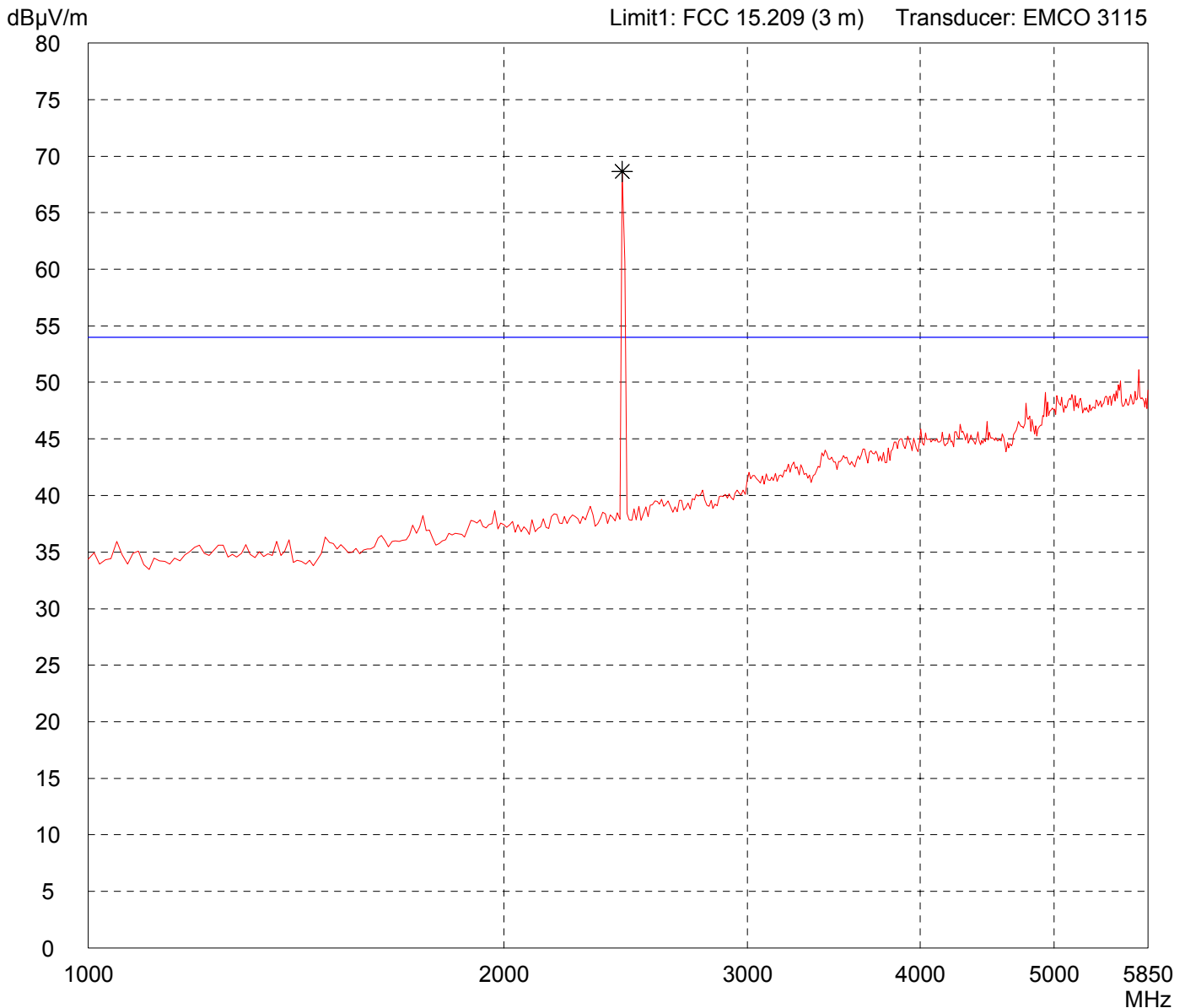
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 1 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>   |   |
| Applicant:<br><b>Fakt S.r.l.</b>  |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |   |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



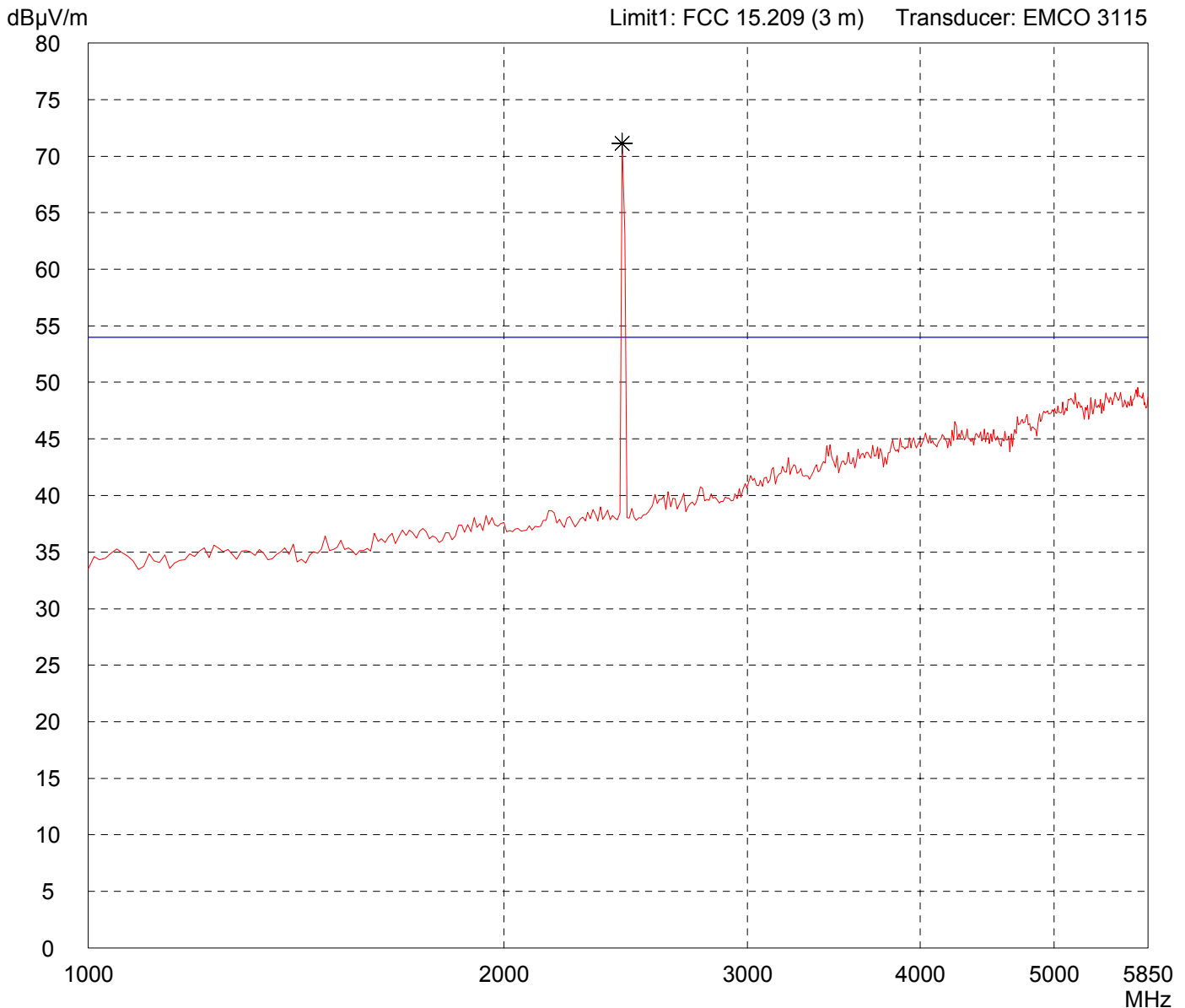
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 1 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                       |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                      |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                 |   |
| Tested on:<br><b>Test distance 3 metres<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                    | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                               | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



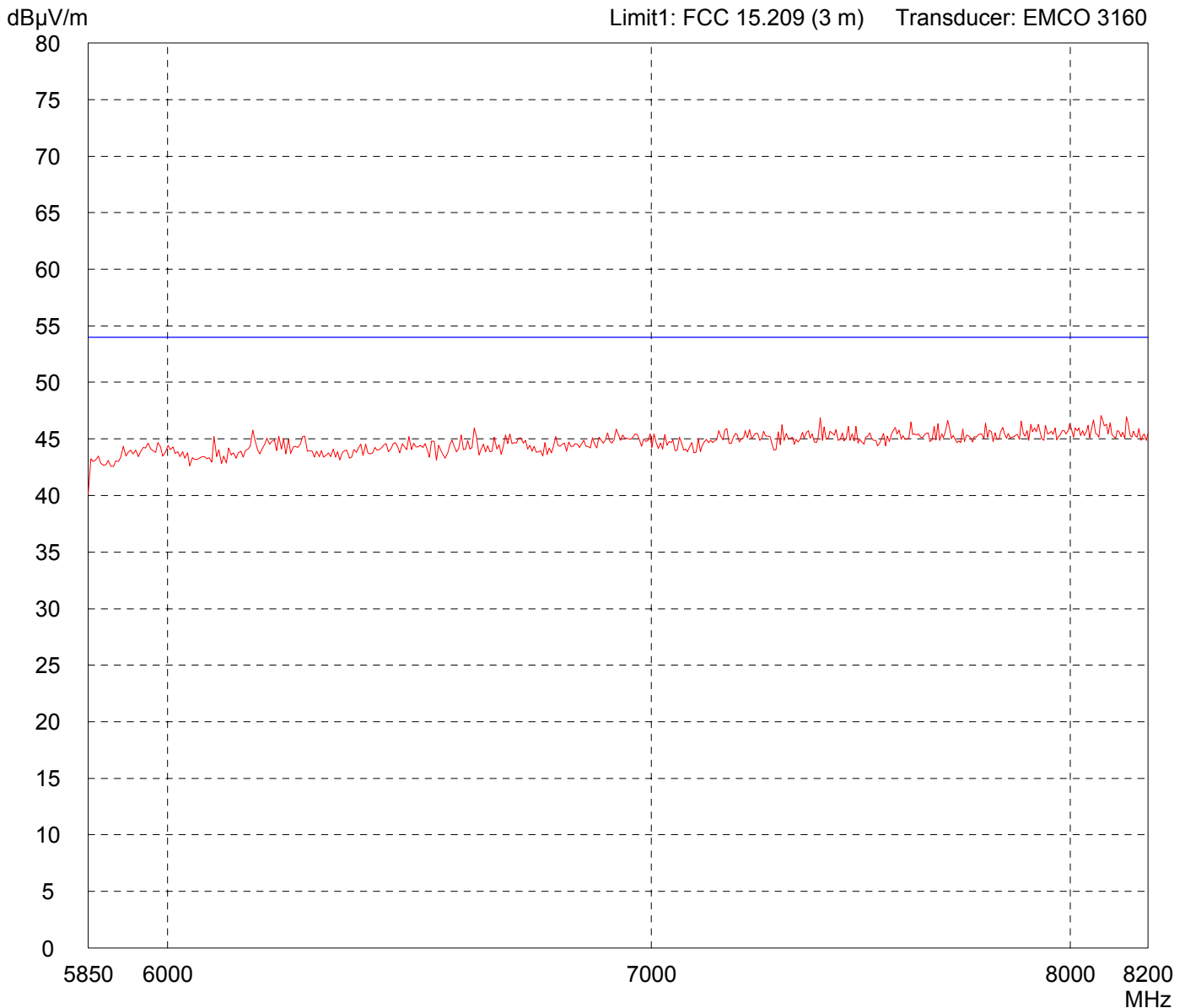
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>   |   |
| Applicant:<br><b>Fakt S.r.l.</b>  |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |   |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



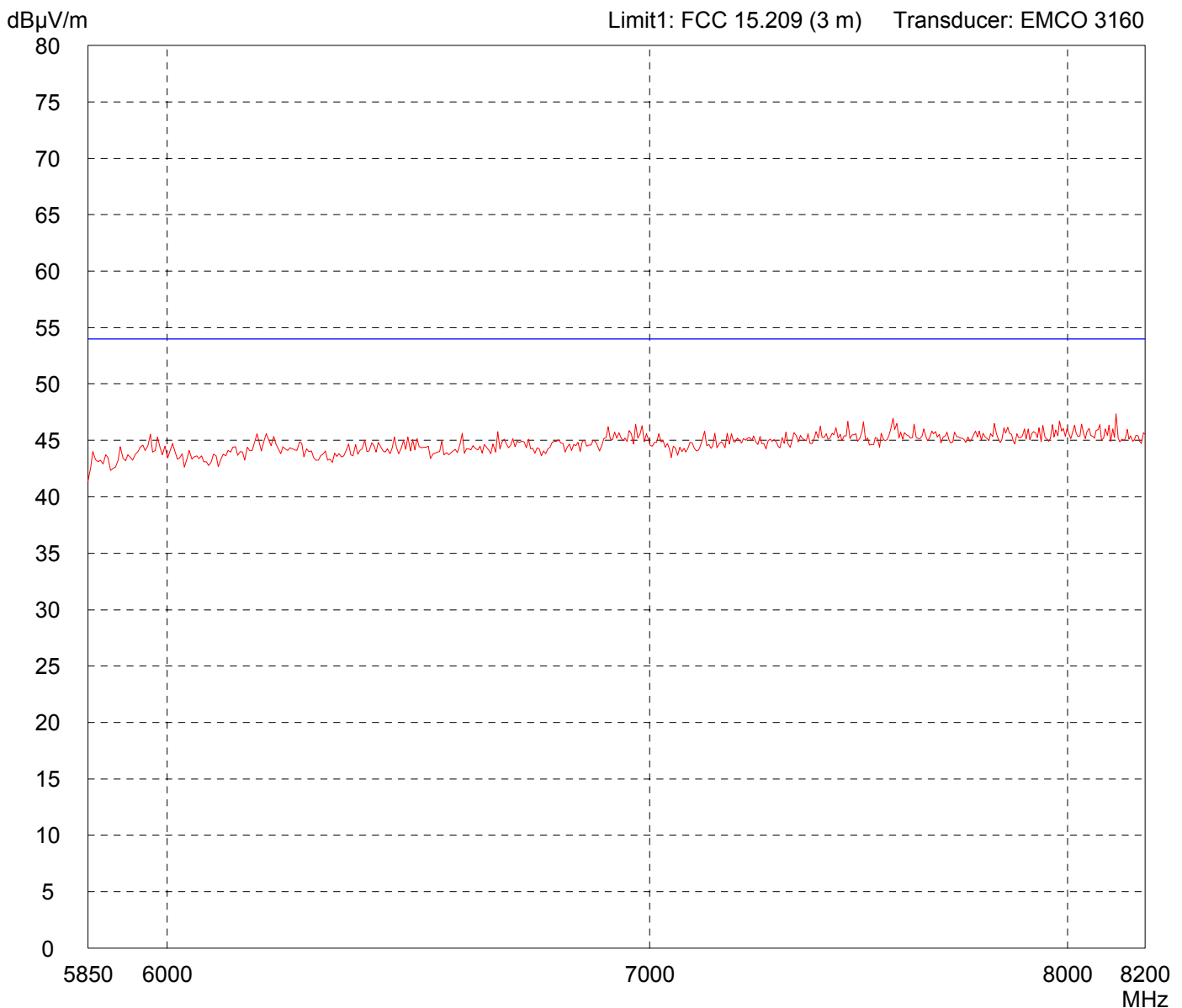
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                       |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                      |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                 |   |
| Tested on:<br><b>Test distance 3 metres<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                    | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                               | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



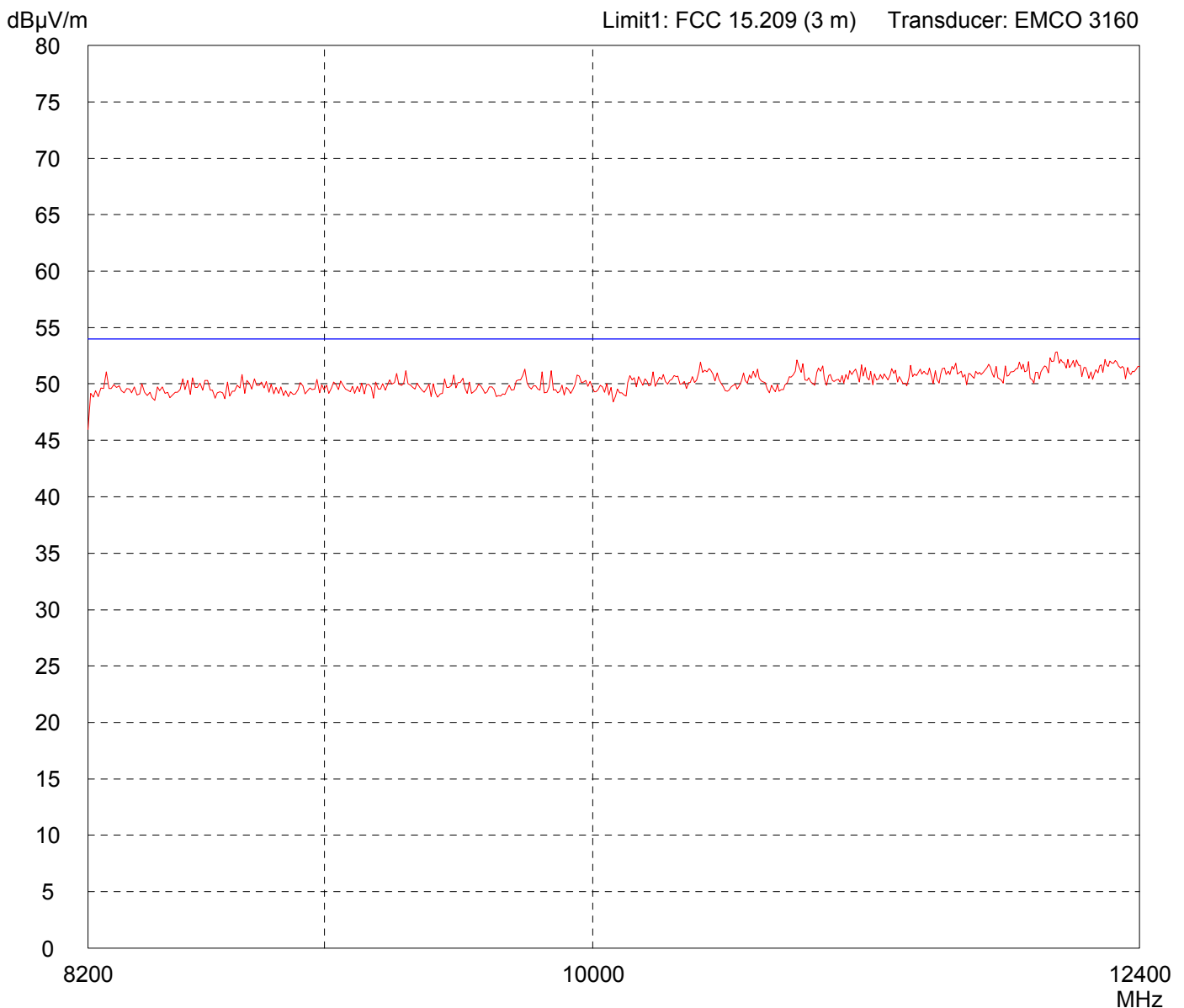
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |   |
|---|---|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>   |   |
| Applicant:<br><b>Fakt S.r.l.</b>  |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |   |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



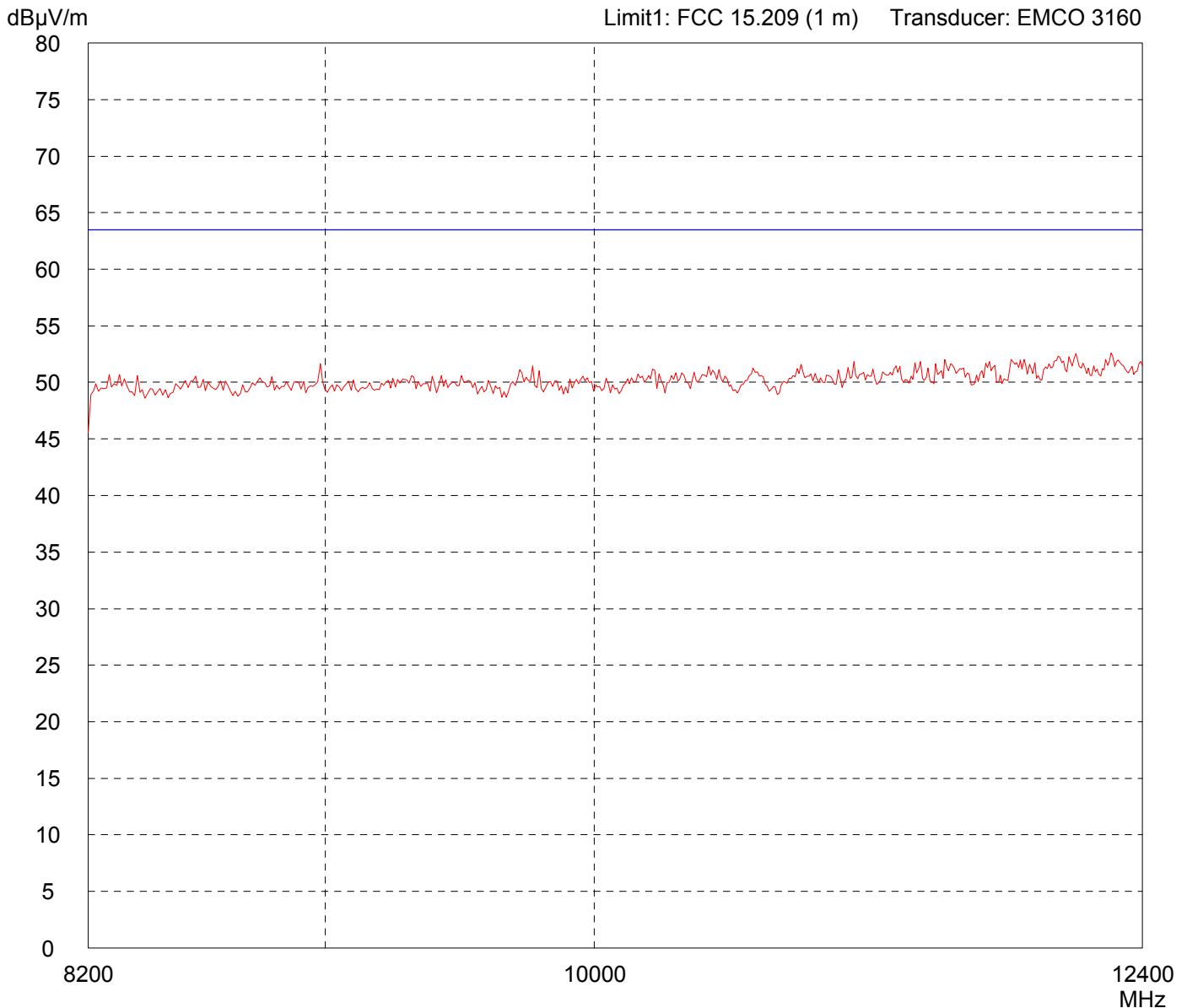
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |   |
|--|---|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                      |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                     |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                |   |
| Tested on:<br><b>Test distance 1 meter<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                   | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>automatically</b>                              | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><div style="display: flex; justify-content: space-between;"> <span><b>10 dB Margin</b></span> <span><b>50 Subranges</b></span> </div> |
|--------------------------|--|



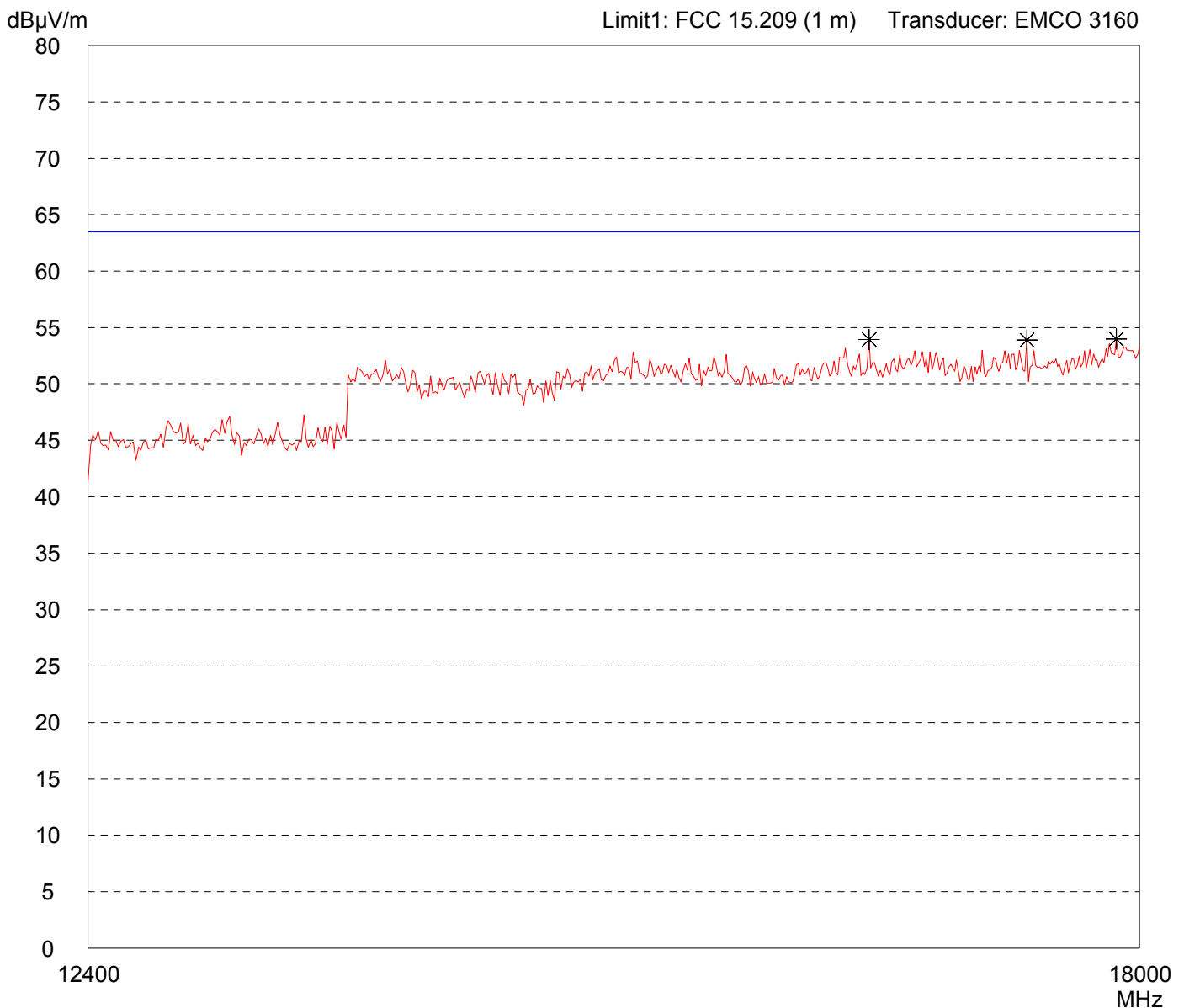
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 12.4 GHz - 18 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |   |
|--|---|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>  |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                       |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                  |   |
| Tested on:<br><b>Test distance 1 meter<br/>Horizontal Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                     | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>by hand</b>                                      | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><div style="display: flex; justify-content: space-between;"> <span><b>10 dB Margin</b></span> <span><b>50 Subranges</b></span> </div> |
|--------------------------|--|



|         |   |
|---------|---|
| Result: | <div style="display: flex; justify-content: space-between;"> <div>           Project file:<br/> <b>55147-81414</b> </div> <div>           Page    of    Pages         </div> </div> |
|---------|---|

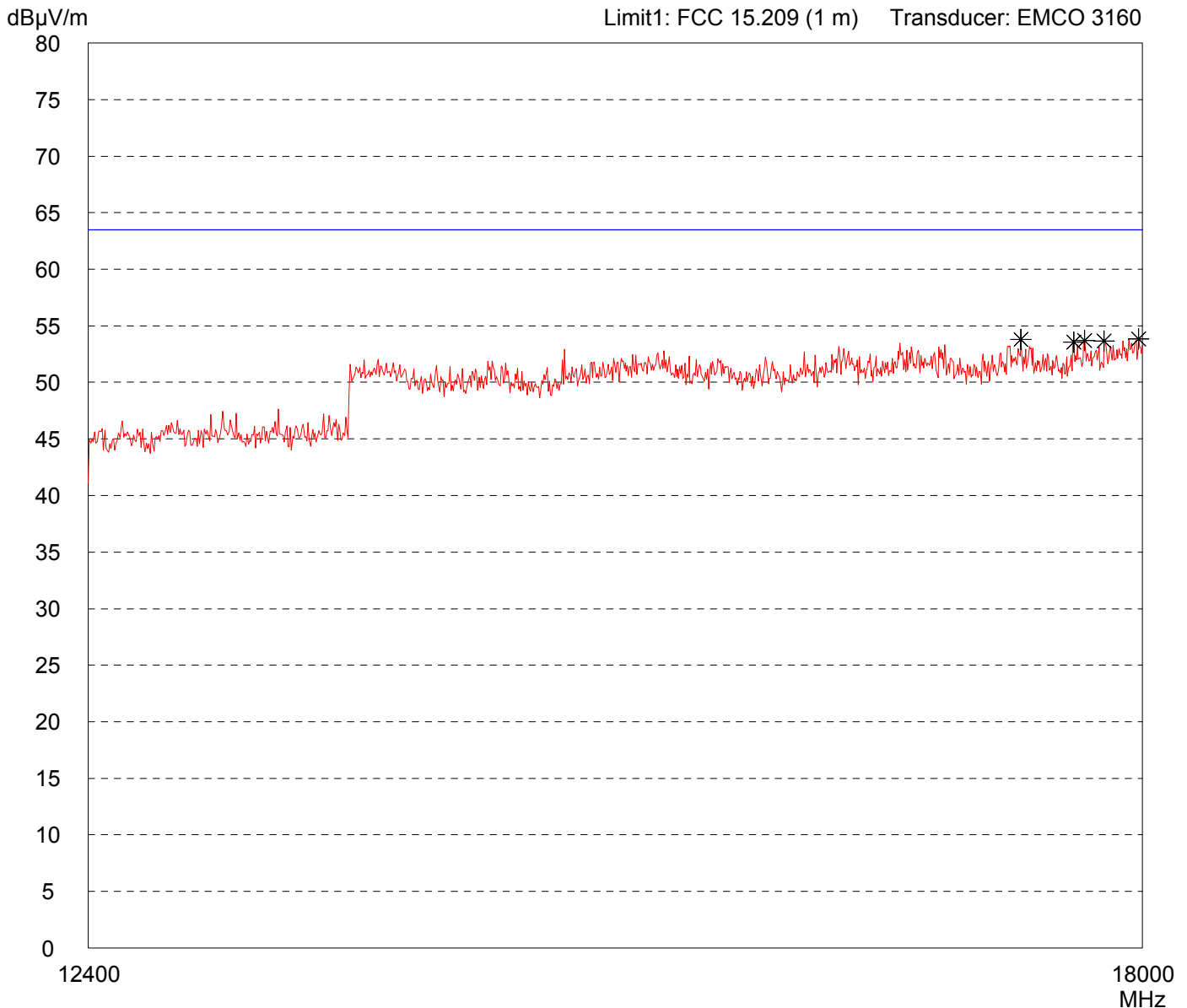


# Radiated Emission Test 12.4 GHz - 18 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |   |
|--|---|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2440 MHz<br><br>- Antenna connectors terminated |
| Serial no.:<br><b>68/08/EMC</b>                                      |   |
| Applicant:<br><b>Fakt S.r.l.</b>                                     |   |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                |   |
| Tested on:<br><b>Test distance 1 meter<br/>Vertical Polarization</b> |   |
| Date of test:<br><b>11/21/2008</b>                                   | Operator:<br><b>J. Roidt</b>  |
| Test performed:<br><b>by hand</b>                                    | File name:<br><b>default.emi</b>                                    |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><div style="display: flex; justify-content: space-between;"> <span><b>10 dB Margin</b></span> <span><b>50 Subranges</b></span> </div> |
|--------------------------|--|



|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

## Spurious emissions according to FCC Rules

Model:  
Maserati

Serial No.:  
68/08/EMC

Applicant:  
Fakt s.r.l.

Mode:  
- TX at 2440 MHz

- Horizontal and vertical polarisation displayed in two traces

Ref.Level 87 dB $\mu$ V  
10 dB/Div.

ATT 0 dB



Start 18.000 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 26.500 GHz  
SWP 2.60 s

Tested by:  
Johann Roidt

Date:  
11/21/2008

Project-No.:  
55147-081414

Page of pages

# Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |  |
|---|--|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>   |  |
| Applicant:<br><b>Fakt S.r.l.</b>  |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |  |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



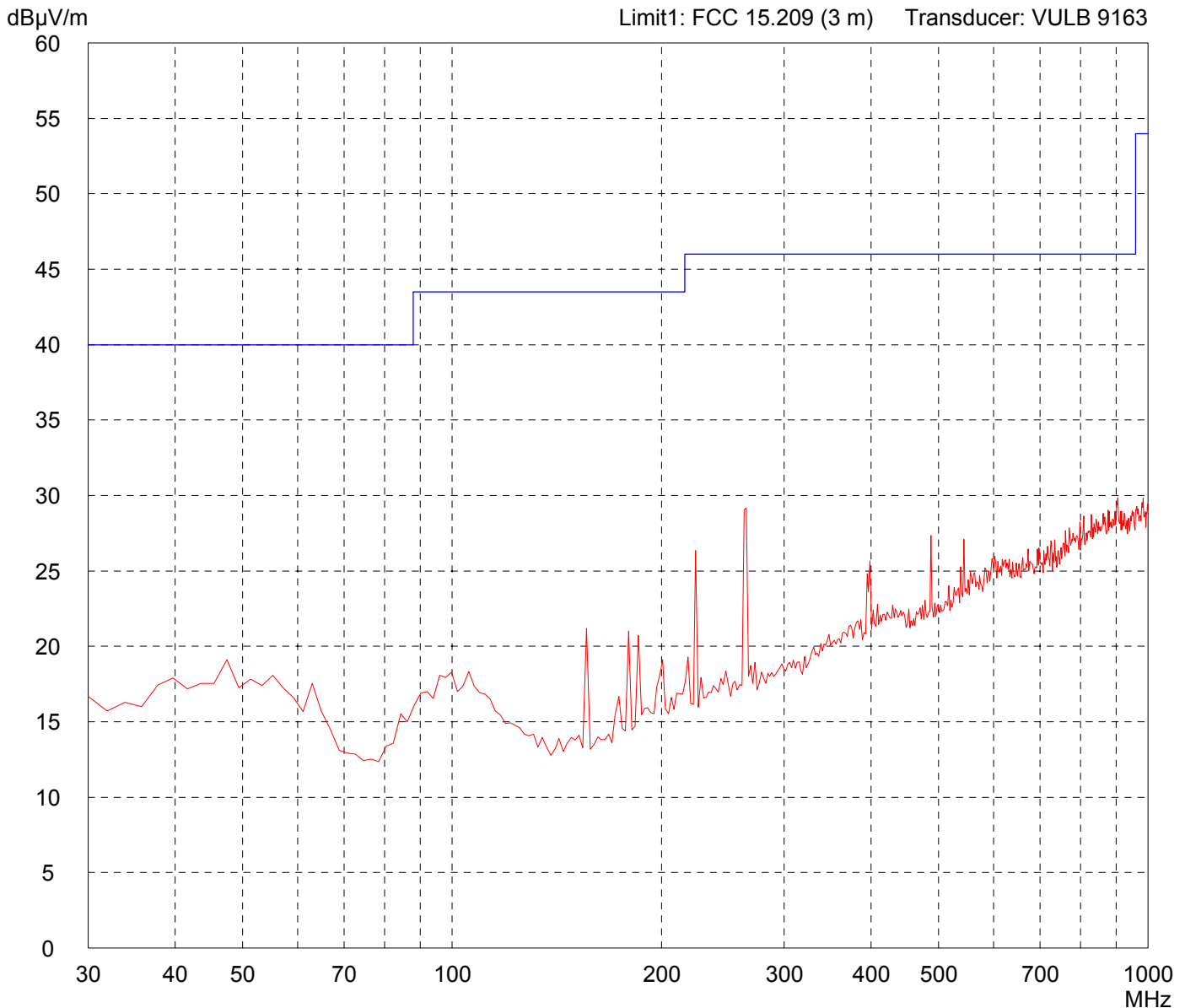
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|---------|-------------------------------------|

Page    of    Pages

# Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |   |
|--|---|
| <b>Model:</b><br><b>Maserati</b>   | <b>Comment:</b><br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| <b>Serial no.:</b><br><b>68/08/EMC</b>   |   |
| <b>Applicant:</b><br><b>Fakt S.r.l.</b>  |   |
| <b>Test site:</b><br><b>Fully anechoic room, cabin no. 2</b>                       |   |
| <b>Tested on:</b><br><b>Test distance 3 metres</b><br><b>Vertical Polarization</b> |   |
| <b>Date of test:</b><br><b>11/21/2008</b>  | <b>Operator:</b><br><b>J. Roidt</b>                                       |
| <b>Test performed:</b><br><b>automatically</b>                                     | <b>File name:</b><br><b>default.emi</b>                                   |

|                                 |   |
|---------------------------------|---|
| <b>Detector:</b><br><b>Peak</b> | <b>List of values:</b><br><b>10 dB Margin</b> <div style="text-align: right;"><b>50 Subranges</b></div> |
|---------------------------------|---|



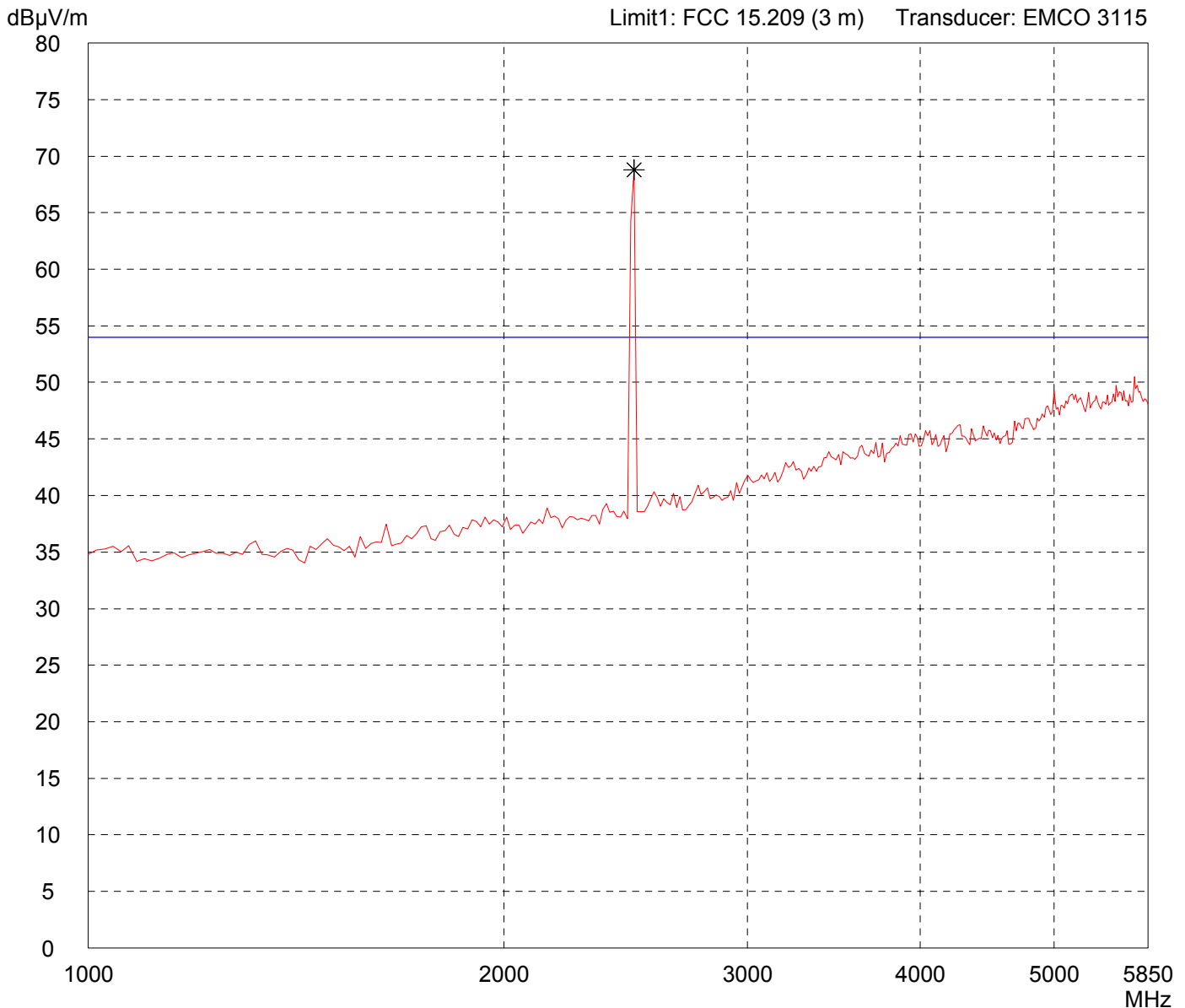
|                |  |
|----------------|--|
| <b>Result:</b> | <b>Project file:</b><br><b>55147-81414</b> <div style="text-align: right;">Page    of    Pages</div> |
|----------------|--|

# Radiated Emission Test 1 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |  |
|---|--|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>   |  |
| Applicant:<br><b>Fakt S.r.l.</b>  |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |  |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



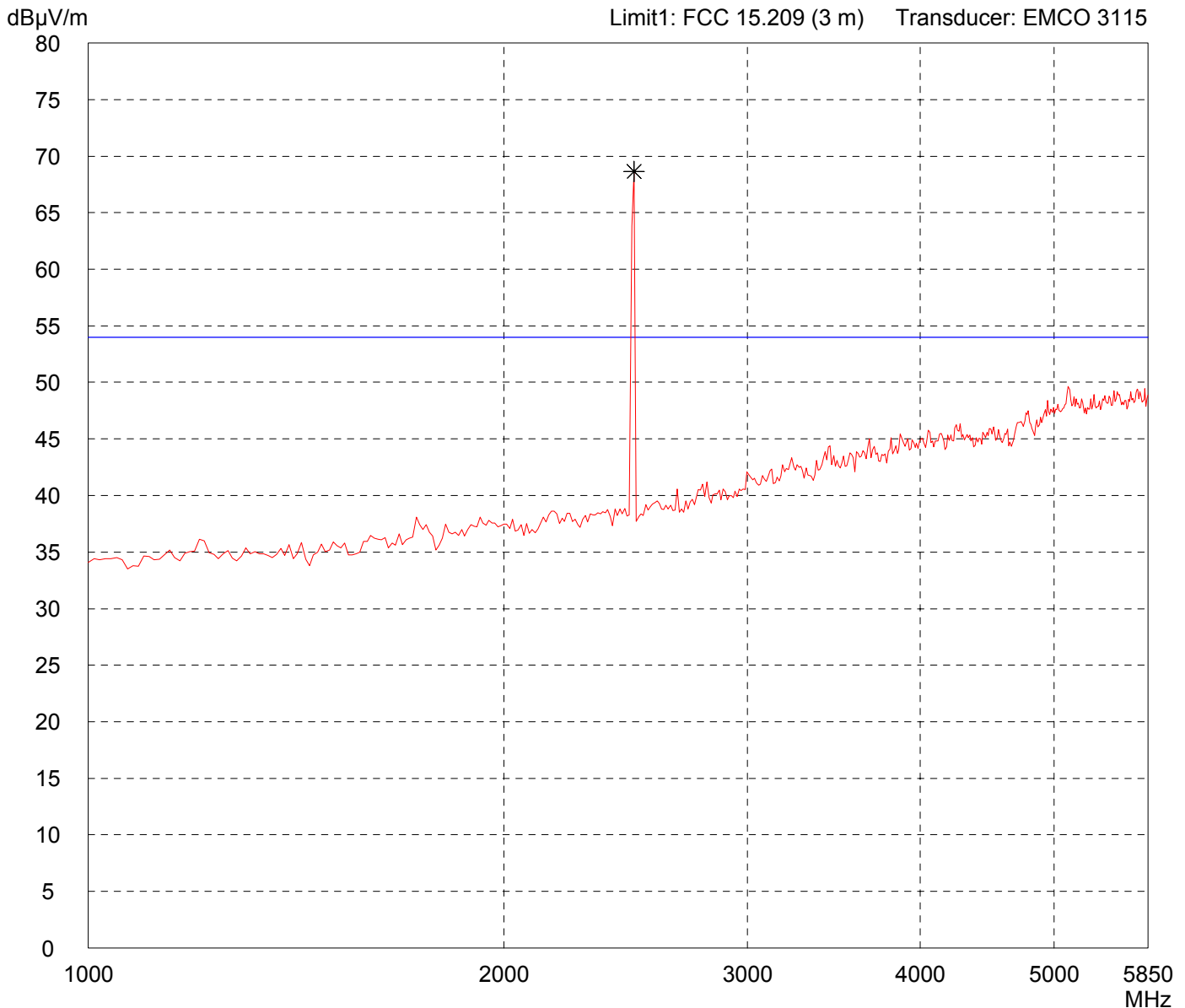
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 1 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |  |
|---|--|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>   |  |
| Applicant:<br><b>Fakt S.r.l.</b>  |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |  |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



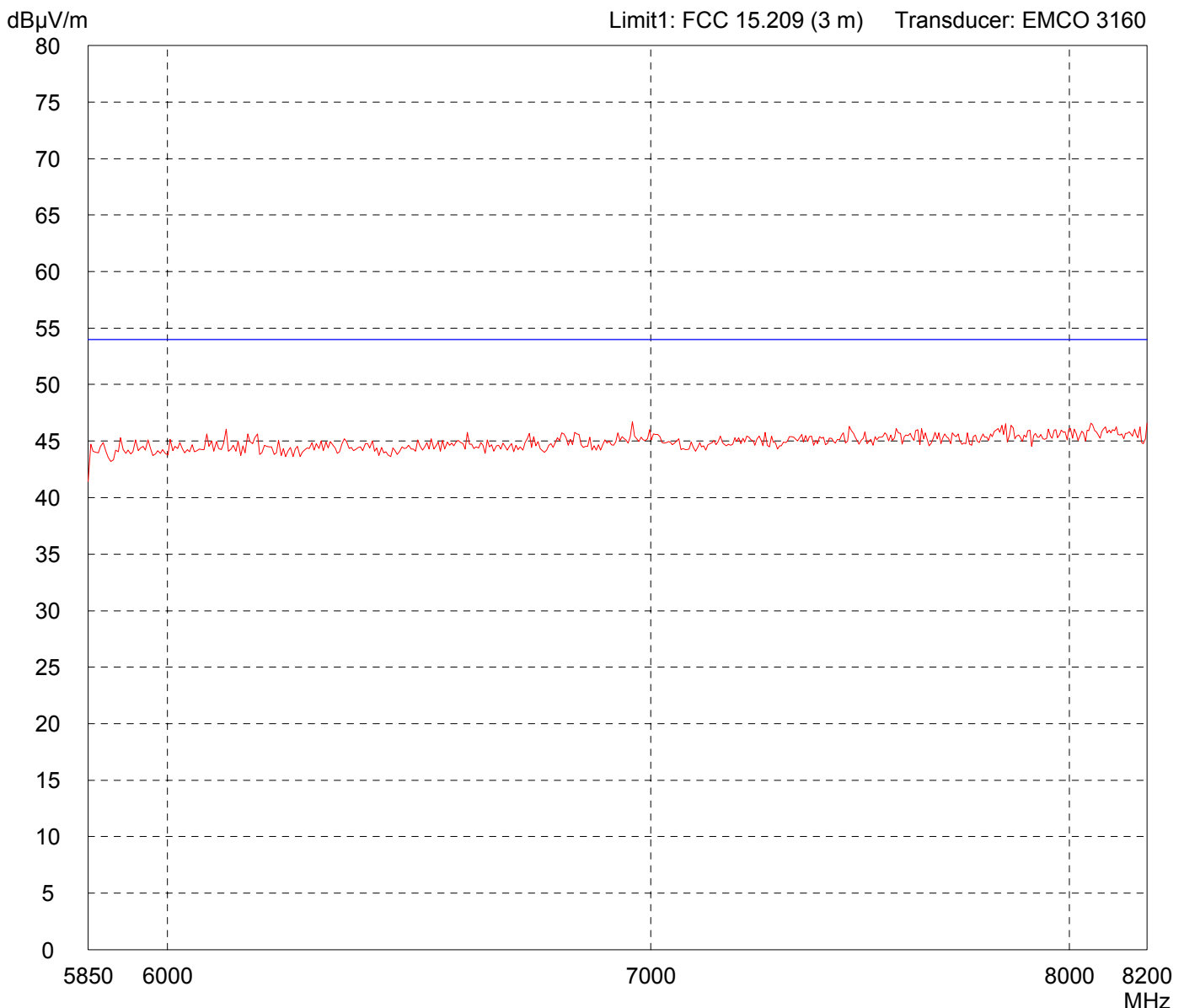
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |  |
|---|--|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>   |  |
| Applicant:<br><b>Fakt S.r.l.</b>  |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                   |  |
| Tested on:<br><b>Test distance 3 metres<br/>Horizontal Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                      | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>automatically</b>                                 | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



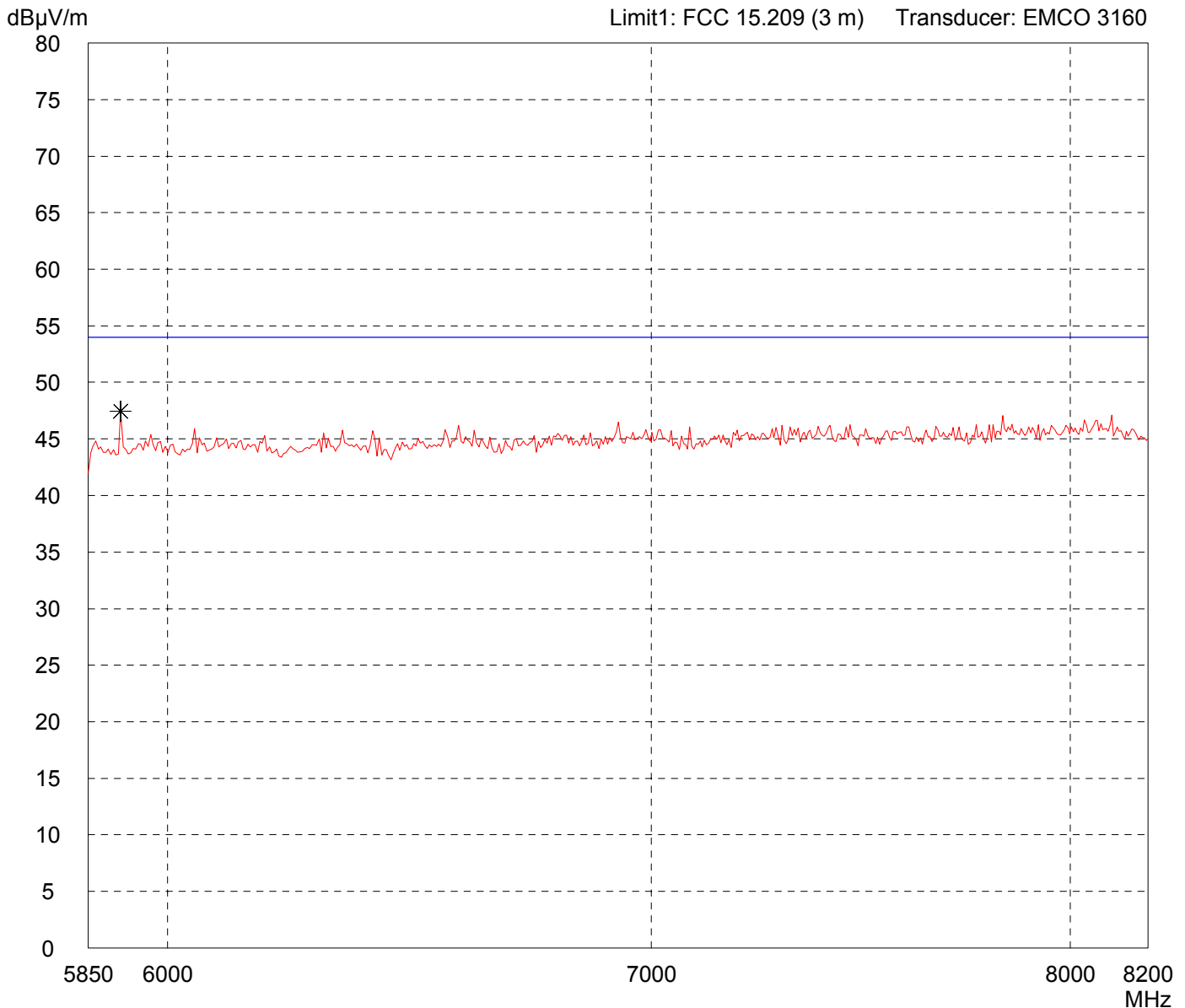
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

|   |  |
|---|--|
| Model:<br><b>Maserati</b>   | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>                                       |  |
| Applicant:<br><b>Fakt S.r.l.</b>                                      |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                 |  |
| Tested on:<br><b>Test distance 3 metres<br/>Vertical Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                    | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>automatically</b>                               | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

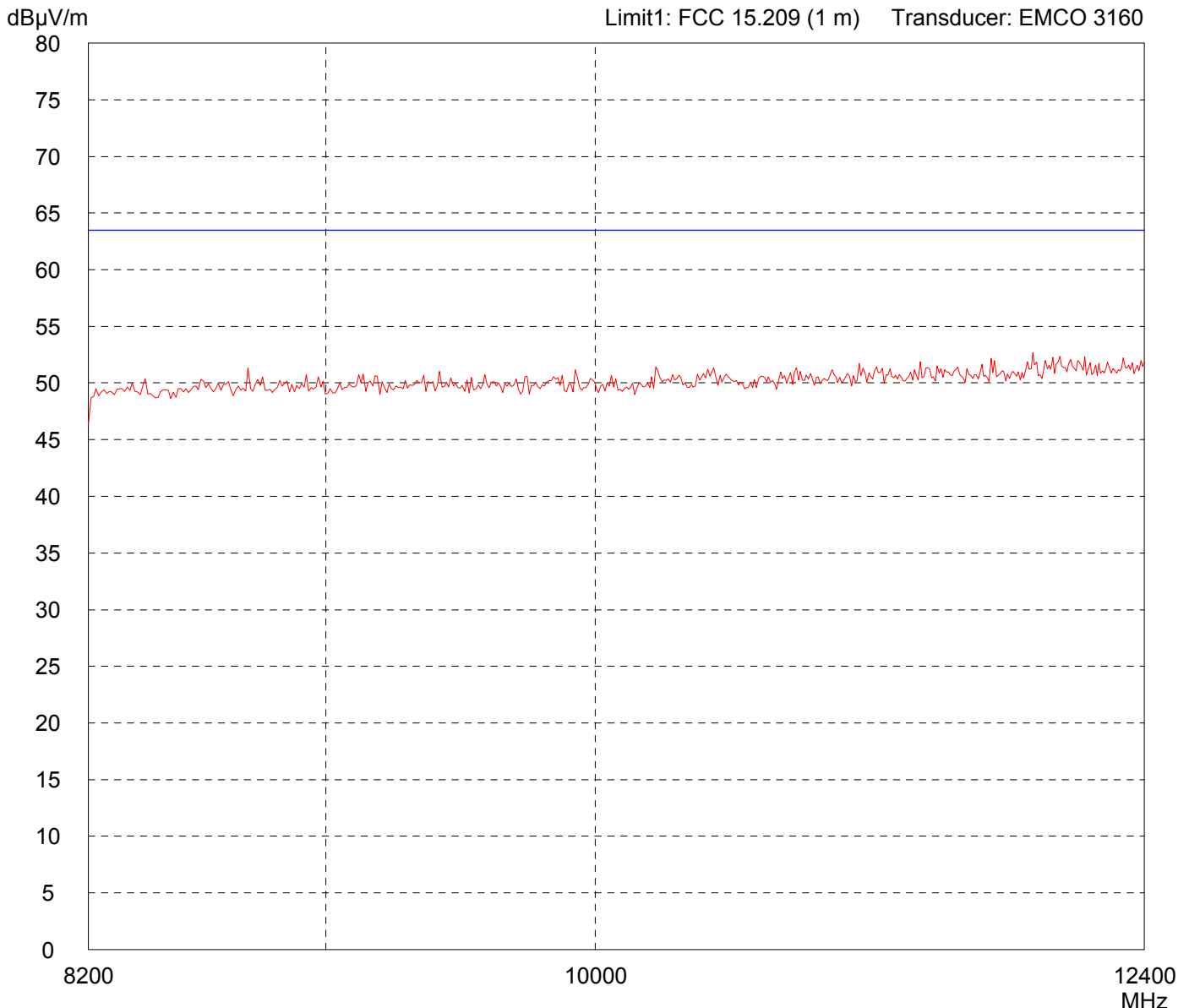


# Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |  |
|--|--|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>  |  |
| Applicant:<br><b>Fakt S.r.l.</b>                                       |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                  |  |
| Tested on:<br><b>Test distance 1 meter<br/>Horizontal Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                     | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>automatically</b>                                | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><div style="display: flex; justify-content: space-between;"> <span><b>10 dB Margin</b></span> <span><b>50 Subranges</b></span> </div> |
|--------------------------|--|



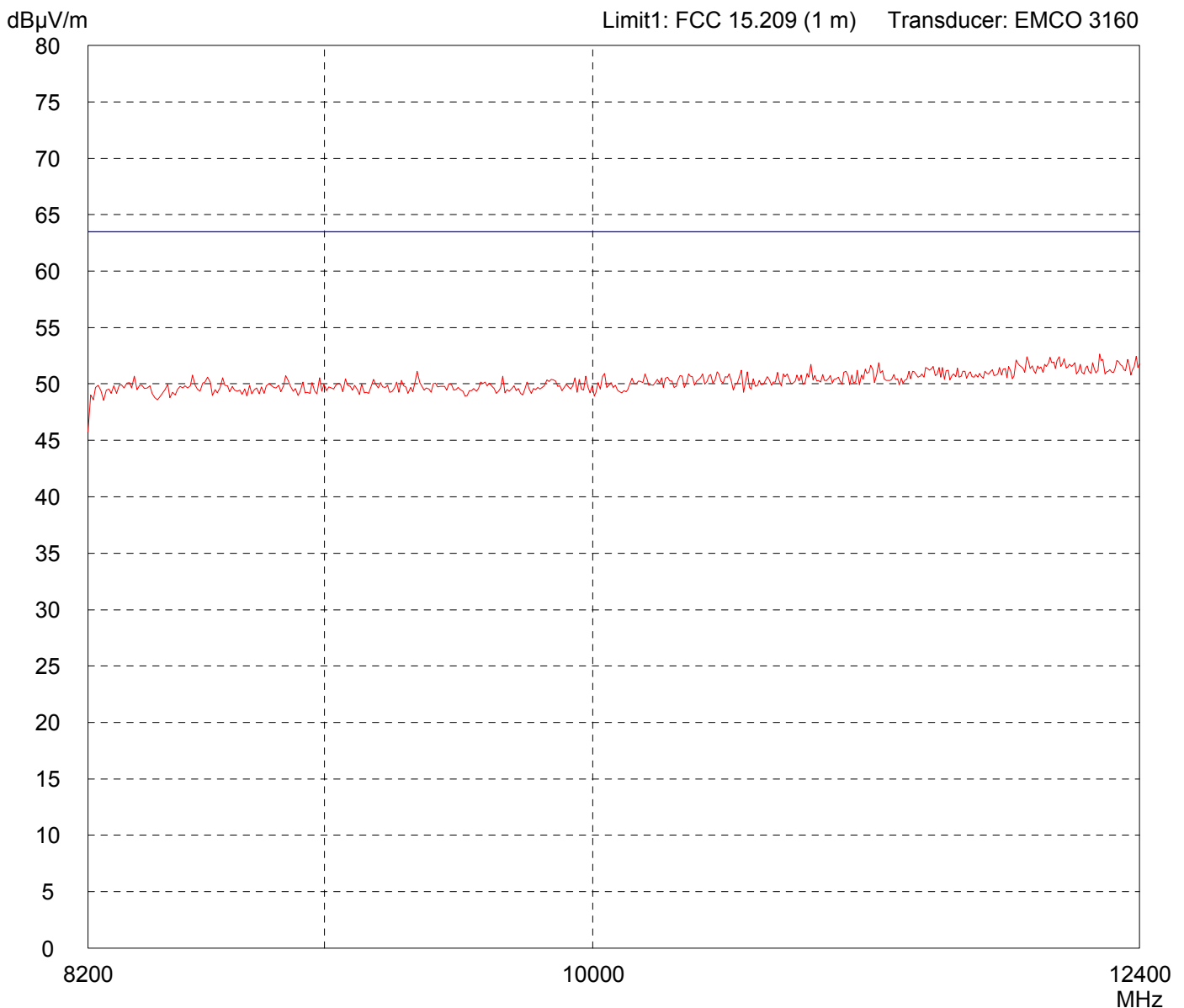
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |  |
|--|--|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>                                      |  |
| Applicant:<br><b>Fakt S.r.l.</b>                                     |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                |  |
| Tested on:<br><b>Test distance 1 meter<br/>Vertical Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                   | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>automatically</b>                              | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><div style="display: flex; justify-content: space-between;"> <span><b>10 dB Margin</b></span> <span><b>50 Subranges</b></span> </div> |
|--------------------------|--|



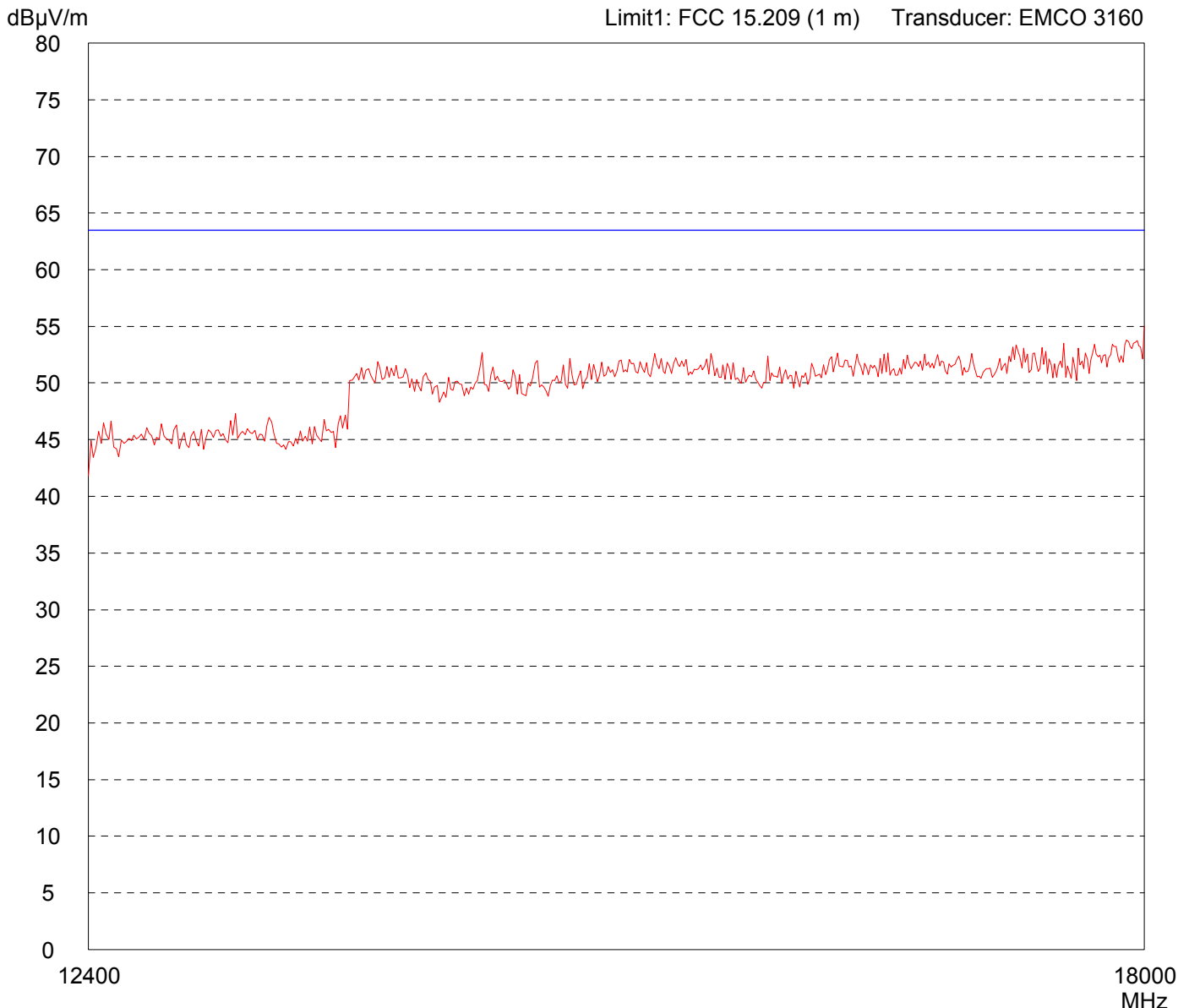
|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 12.4 GHz - 18 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |  |
|--|--|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>  |  |
| Applicant:<br><b>Fakt S.r.l.</b>                                       |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                  |  |
| Tested on:<br><b>Test distance 1 meter<br/>Horizontal Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                     | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>by hand</b>                                      | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|

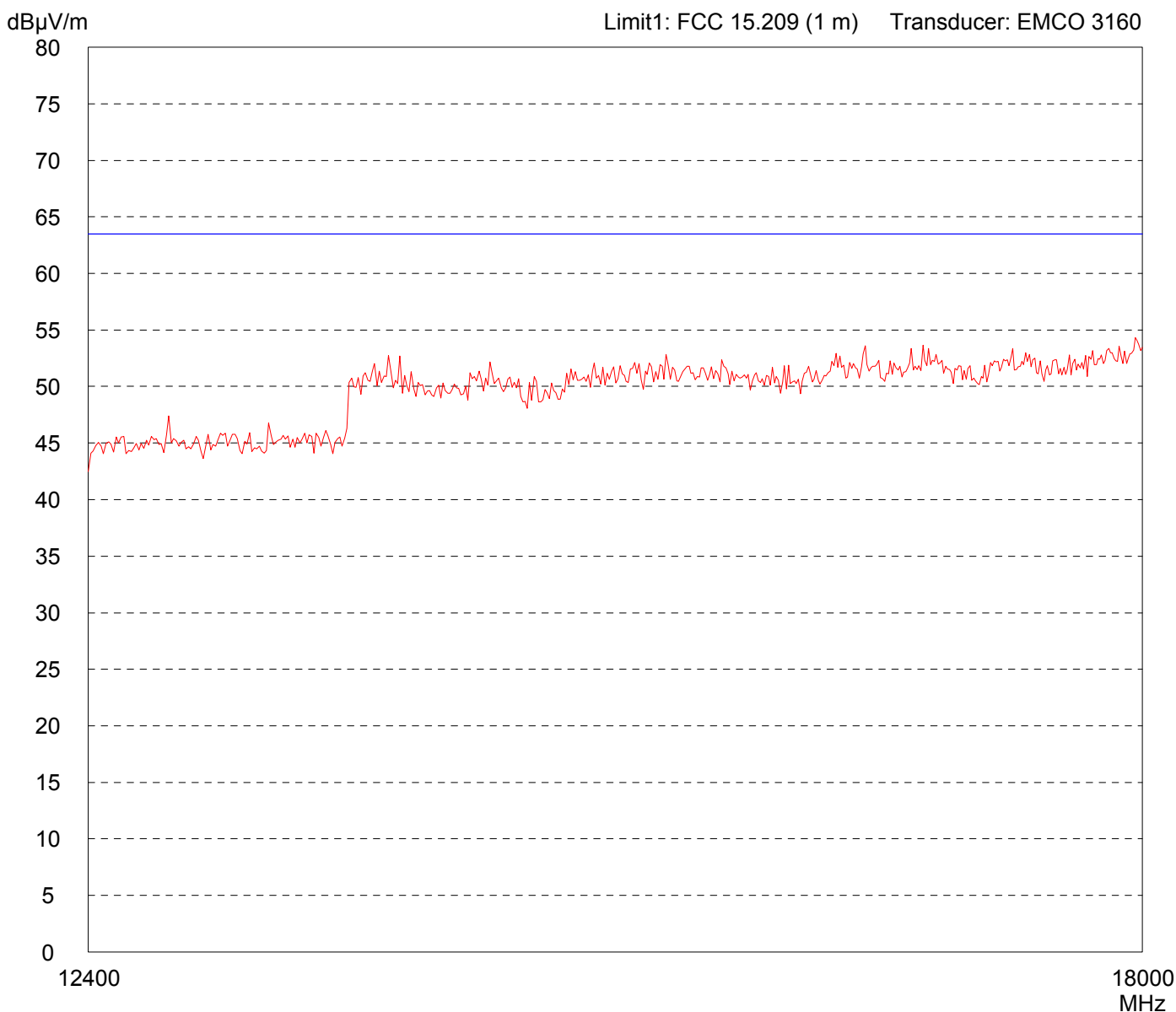


|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

# Radiated Emission Test 12.4 GHz - 18 GHz acc. to FCC Part 15 Subpart C (FAR)

|  |  |
|--|--|
| Model:<br><b>Maserati</b>  | Comment:<br>- TX at 2480 MHz<br><br>- Antenna connector terminated |
| Serial no.:<br><b>68/08/EMC</b>                                      |  |
| Applicant:<br><b>Fakt S.r.l.</b>                                     |  |
| Test site:<br><b>Fully anechoic room, cabin no. 2</b>                |  |
| Tested on:<br><b>Test distance 1 meter<br/>Vertical Polarization</b> |  |
| Date of test:<br><b>11/21/2008</b>                                   | Operator:<br><b>J. Roidt</b>                                       |
| Test performed:<br><b>by hand</b>                                    | File name:<br><b>default.emi</b>                                   |

|                          |  |
|--------------------------|--|
| Detector:<br><b>Peak</b> | List of values:<br><b>Selected by hand</b> |
|--------------------------|--|



|         |                                     |
|---------|-------------------------------------|
| Result: | Project file:<br><b>55147-81414</b> |
|         | Page    of    Pages                 |

## Spurious emissions according to FCC Rules

Model:  
Maserati

Serial No.:  
68/08/EMC

Applicant:  
Fakt s.r.l.

Mode:  
- TX at 2480 MHz

- Horizontal and vertical polarisation displayed in two traces

Ref.Level 87 dB $\mu$ V  
10 dB/Div.

ATT 0 dB



Start 18.000 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 26.500 GHz  
SWP 2.60 s

Tested by:  
Johann Roidt

Date:  
11/21/2008

Project-No.:  
55147-081414

Page of pages