Senton GmbH
Aeussere Fruehlingstrasse 45
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Straubing, October 29, 2008

T E S T - R E P O R T

No. 50941-080945 (Edition 2)

for

PC 3440

Microwave RFID Reader

Applicant:	IDENTEC SOLUTIONS Deutschland GmbH
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 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) 3
2 Administrative Data 4
3 Identification of the Test Laboratory 5
4 Summary 6
5 Operation Mode and Configuration of EUT 7
6 Measurement Procedures 8
6.1 Conducted Output Power 8
6.2 Bandwidth Measurements 10
6.3 Conducted AC Powerline Emission 11
6.4 Radiated Emission Measurement 9 kHz to 30 MHz 13
6.5 Radiated Emission in Fully or Semi Anechoic Room 15
6.6 Radiated Emission at Open Field Test Site 17
7 Photographs Taken During Testing 18
8 Test Results for Transmitter 24
8.1 Occupied Bandwidth 26
8.2 Bandwidth of the Emission 34
8.3 Designation of Emissions 38
8.4 Channel Bandwidth 39
8.5 Hopping channel separation 40
8.6 Number of hopping frequencies used 44
8.7 Time occupancy on any channel 46
8.8 Maximum output power 50
8.9 Conducted Powerline Emission Measurement 150 kHz to 30 MHz 54
8.10 Radiated Emission Measurement 9 kHz to 30 MHz 56
8.11 Radiated Emission Measurement 30 MHz to 25 GHz 57
8.12 RF exposure requirement 60
8.13 Exposure of Humans to RF Fields 61
9 Test Results for Receiver 63
9.1 Radiated Emission Measurement 30 MHz to 12.5 GHz 64
10 Referenced Regulations 66
11 Revision History 67
12 Charts taken during testing 68

1 Description of the Equipment Under Test (EUT)

General data of EUT	
Type designation[1]:	PC 3440
Parts[2]:	
Serial number(s):	S/N 0742 3444
Manufacturer:	IDENTEC SOLUTIONS Deutschland GmbH
Type of equipment:	Microwave RFID Reader
Version:	As received
FCC ID:	
Additional parts/accessories:	

Technical data of EUT		
Application frequency range:	2400.0 - 2483.5 MHz	
Frequency range:	2402 - 2480 MHz	
Operating frequency:	2402 MHz, 2441 MHz, 2480 MHz	
Type of modulation:	ASK	
Pulse train:	---	
Pulse width:	---	
Number of RF-channels:	27	
Channel spacing:	3 MHz	
Designation of emissions[3]:	300KA1D	
Type of antenna:	Integrated on printed board	
Size/length of antenna:	92 x 92 mm	
Connection of antenna:	☐ detachable	☒ not detachable
Type of power supply:	DC supply	
Specifications for power supply:	nominal voltage:	24.0 V

[1] Type designation of the system if EUT consists of more than one part.
[2] Type designations of the parts of the system, if applicable.
[3] Also known as "Class of Emission".

2 Administrative Data

Application details	
Applicant (full address):	IDENTEC SOLUTIONS Deutschland GmbH Hertzstraße 10 69469 Weinheim Germany
Contact person:	Mr. Hans-Günther Meuthen
Contract identification:	Order of July 28, 2008
Receipt of EUT:	September 24, 2008
Date(s) of test:	September 2008
Note(s):	Mr. Günther Meuthen representing the applicant attended testings on September 24, 2008.

Report details	
Report number:	50941-080945
Edition:	2
Issue date:	October 29, 2008

3 Identification of the Test Laboratory

Details of the Test Laboratory	
Company name:	Senton GmbH EMI/EMC Test Center
Address:	Aeussere Fruehlingstrasse 45 D-94315 Straubing 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 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).

Personnel involved in this report	
Laboratory Manager:	 Mr. Johann Roidt
Responsible for testing:	 Mr. Martin Steindl
Responsible for test report:	Mr. Martin Steindl

5 Operation Mode and Configuration of EUT

Operation Mode
All tests were performed in transmitting mode on lowest (CH0: 2402 MHz), middle(CH13: 2441 MHz) and highest (CH26: 2480 MHz) frequency and standby-mode.

Configuration of EUT
The EUT was configured as external device connected to a laptop PC via a VariServiceUSB interface convertor. For the measurement of conducted emission a AC/DC adapter was used.

List of ports and cables

Port	*Description*	*Classification*[4]	*Cable type*	*Cable length*
1	AC input of AC/DC convertor of laptop PC	ac power	Unshielded	1 m
2	DC input of laptop PC	dc power	Unshielded	1.5 m
3	USB from laptop PC to interface convertor	signal/control port	Shielded	1 m
4	DC input of EUT	signal/control port	Shielded	2 m
5	Ethernet	signal/control port	Shielded	2 m
6	VariBus input	signal/control port	Shielded	5 m
7	IO	signal/control port	Shielded	5 m

List of devices connected to EUT

Item	*Description*	*Type Designation*	*Serial no. or ID*	*Manufacturer*
1	AC/DC convertor 24 V			

List of support devices

Item	*Description*	*Type Designation*	*Serial no. or ID*	*Manufacturer*
1	Interface convertor	VariServiceUSB		IDENTEC
2	Laptop PC			DELL

[4] Ports shall be classified as ac power, dc power or signal/control port

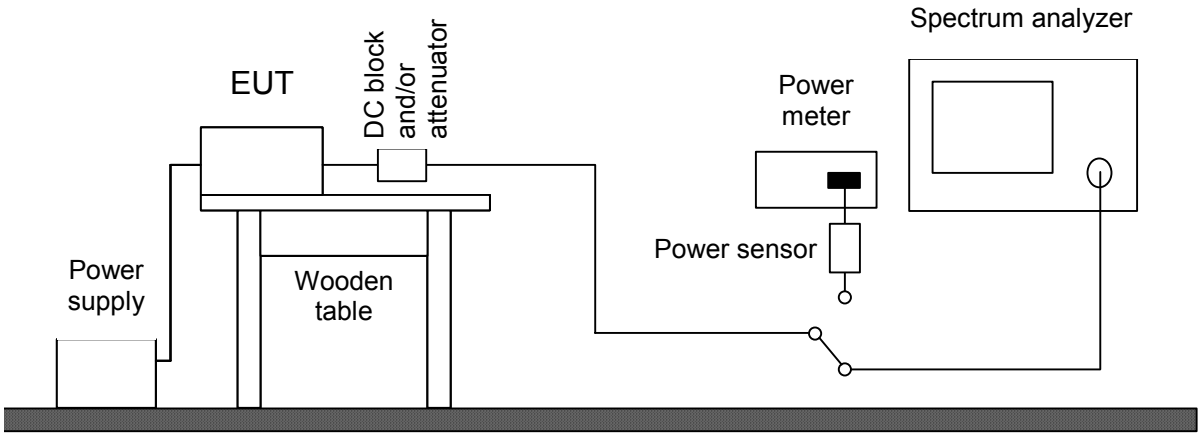
6 Measurement Procedures

6.1 Conducted Output Power

Measurement Procedure:	
Rules and specifications:	CFR 47 Part 2, section 2.1046(a) IC RSS-Gen Issue 2, section 4.8
Guide:	CFR 47 Part 2, section 2.1046 / IC RSS-Gen Issue 2

Conducted output power is measured at the RF output terminals (e.g. antenna connector if antenna is detachable) when the transmitter is adjusted in accordance with the tune-up procedure, if applicable. The RF output terminals are connected to a spectrum analyzer and/or a power meter with appropriate sensor. If required, a resistive matching network equal to the impedance specified or employed for the antenna is used as well as dc block and appropriate attenuators (50 Ohms). The electrical characteristics of the radio frequency load attached to the output terminals shall be stated, if applicable.

If a spectrum analyzer is used and no other settings are specified resolution bandwidth shall be selected according to the carrier frequency f_c and set to 10 kHz (150 kHz $\leq f_c <$ 30 MHz), 100 kHz (30 MHz $\leq f_c <$ 1 GHz) or 1 MHz ($f_c \geq$ 1 GHz). The video bandwidth shall be at least three times greater than the resolution bandwidth. The settings used have to be indicated within the appropriate test record(s).



Test instruments used:

Used	Type	Model	Serial No. or ID	Manufacturer
☐	Spectrum Analyzer	FSP 30	100063	Rohde & Schwarz
☒	EMI test receiver	ESPI7	836914/0002	Rohde & Schwarz
☐	EMI test receiver	ESMI	839379/013 839587/006	Rohde & Schwarz
☐	Power meter	NRVS	836856/015	Rohde & Schwarz
☐	Peak power sensor	NRV-Z31	8579604.03	Rohde & Schwarz
☐	Power sensor	NRV-Z52	837901/030	Rohde & Schwarz
☐	Power sensor	NRV-Z4	863828/015	Rohde & Schwarz
☒	DC-block	7006	A2798	Weinschel
☐	Attenuator	4776-10	9412	Narda
☐	Attenuator	4776-20	9503	Narda

6.2 Bandwidth Measurements

Measurement Procedure:	
Rules and specifications:	CFR 47 Part 2, section 2.202(a) CFR 47 Part 15, section 15.215(c) IC RSS-Gen Issue 2, sections 4.6.1 and 4.6.2 IC RSS-210 Issue 7, section A1.1.3 ANSI C63.4, annex H.6
Guide:	ANSI C63.4 / IC RSS-Gen Issue 2, sections 4.6.1 and 4.6.2
Measurement setup:	☐ Conducted: See below ☒ Radiated: Radiated Emission in Fully or Semi Anechoic Room (6.5)
If antenna is detachable bandwidth measurements shall be performed at the antenna connector (conducted measurement) when the transmitter is adjusted in accordance with the tune-up procedure, if applicable. The RF output terminals are connected to a spectrum analyzer. If required, a resistive matching network equal to the impedance specified or employed for the antenna is used as well as dc block and appropriate attenuators (50 Ohms). The electrical characteristics of the radio frequency load attached to the output terminals shall be stated, if applicable. If radiated measurements are performed the same test setups and instruments are used as with radiated emission measurements for the appropriate frequency range. The analyzer settings are specified by the test description of the appropriate test record(s).	

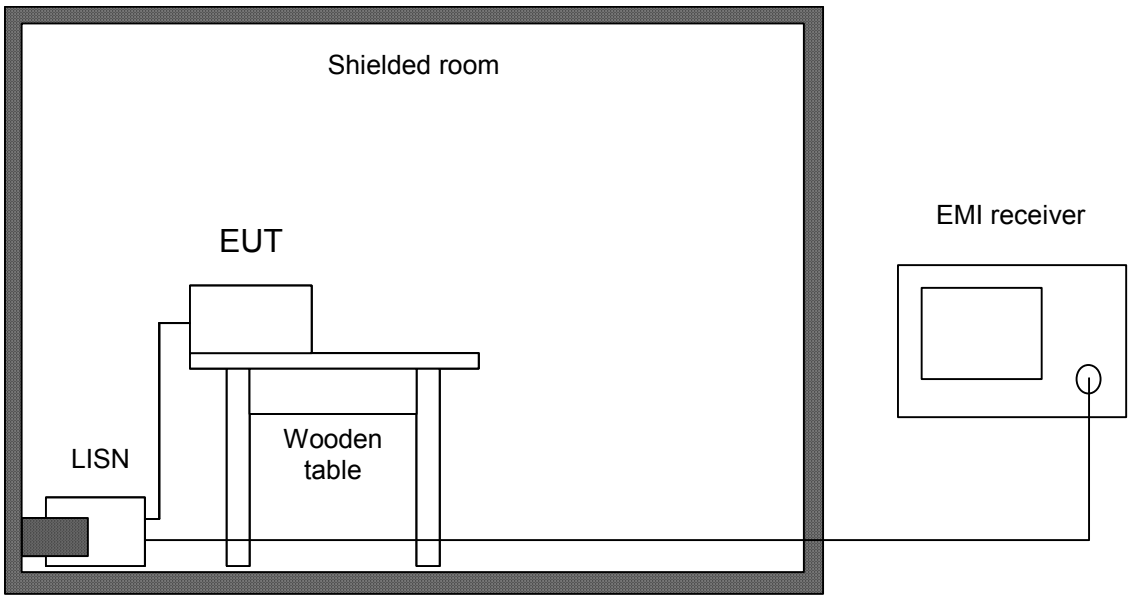
6.3 Conducted AC Powerline Emission

Measurement Procedure:	
Rules and specifications:	CFR 47 Part 15, sections 15.107 and 15.207 IC RSS-Gen Issue 2, section 7.2.2
Guide:	ANSI C63.4 (CISPR 22)

Conducted emission tests in the frequency range 150 kHz to 30 MHz are performed using Line Impedance Stabilization Networks (LISNs). To simplify testing with quasi-peak and average detector the following procedure is used:

First the whole spectrum of emission caused by the equipment under test (EUT) is recorded with detector set to peak using CISPR bandwidth of 10 kHz. After that all emission levels having less margin than 10 dB to or exceeding the average limit are retested with detector set to quasi-peak.
If average limit is kept with quasi-peak levels no additional scan with average detector is necessary. In cases of emission levels between quasi-peak and average limit an additional scan with detector set to average is performed.

According to ANSI C63.4, section 13.1.3.1, testing of intentional radiators with detachable antenna shall be performed using a suitable dummy load connected to the antenna output terminals. Otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended.
Testing with dummy load may be necessary to distinguish (unintentional) conducted emissions on the supply lines from (intentional) emissions radiated by the antenna and coupling directly to supply lines and/or LISN. Usage of dummy load has to be stated in the appropriate test record(s) and notes should be added to clarify the test setup.



Test instruments used:

Used	Type	Model	Serial No. or ID	Manufacturer
☒	EMI receiver	ESHS 10	860043/016	Rohde & Schwarz
☒	LISN	ESH3-Z5	862770/021	Rohde & Schwarz
☐	LISN	ESH3-Z5	830952/025	Rohde & Schwarz
☐	Artificial mains network	ESH 2-Z5	842966/004	Rohde & Schwarz
☐	Shielded room	No. 1	1451	Albatross Projects
☒	Shielded room	No. 4	3FD-100 544	Euroshield

6.4 Radiated Emission Measurement 9 kHz to 30 MHz

Measurement Procedure:	
Rules and specifications:	CFR 47 Part 15, sections 15.205(b) and 15.247 IC RSS-210 Issue 7, sections 2.2(b)(c), 2.6 and A8.5
Guide:	ANSI C63.4

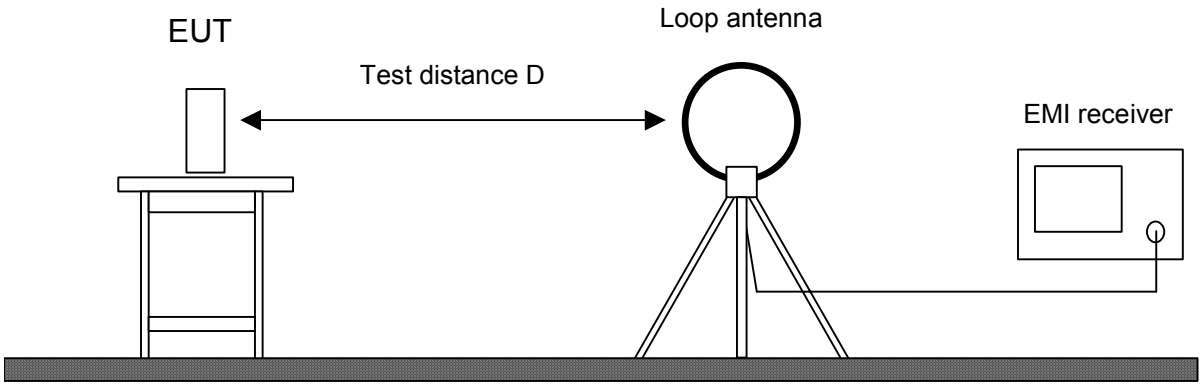
Radiated emission in the frequency range 9 kHz to 30 MHz is measured using an active loop antenna. First the whole spectrum of emission caused by the equipment is recorded at a distance of 3 meters in a fully or semi anechoic room with the detector of the spectrum analyzer or EMI receiver set to peak. This configuration is also used for recording the spectrum of intentional radiators.

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.
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).

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.

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.



Test instruments used:

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

6.5 Radiated Emission in Fully or Semi Anechoic Room

Measurement Procedure:	
Rules and specifications:	CFR 47 Part 15, sections 15.109, 15.215(b), 15.247 and 15.249 IC RSS-Gen Issue 2, sections 6(a), 7.2.3.2 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.

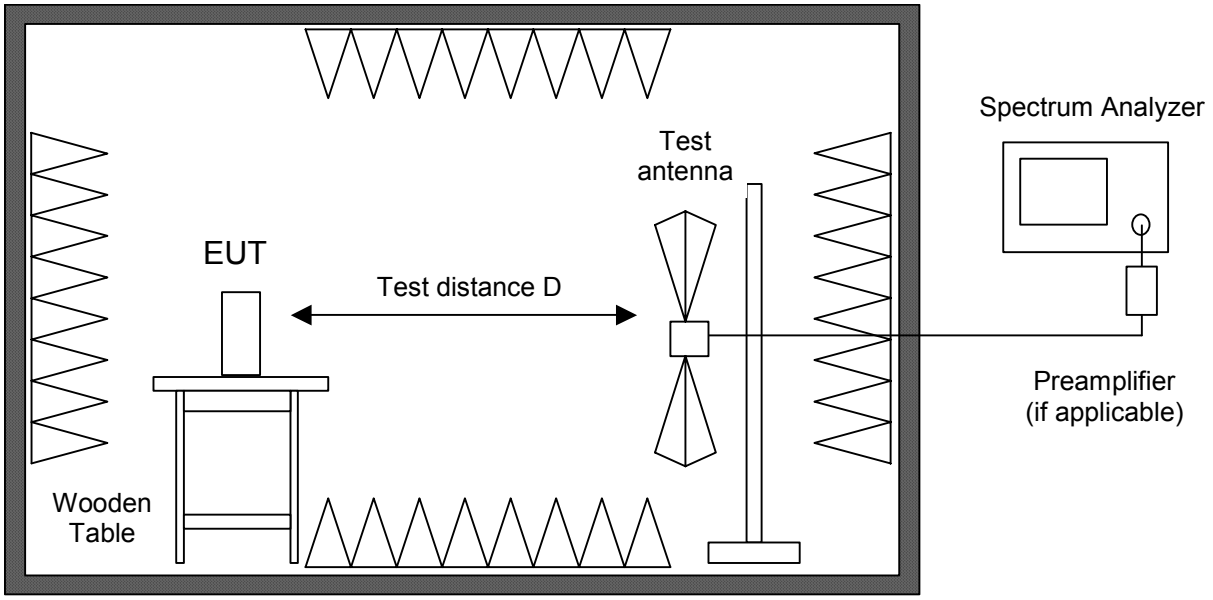
All tests below 8.2 GHz are performed at a test distance D of 3 meters. For higher frequencies the test distance is reduced (e.g. to 1 meter) due to the sensitivity of the measuring instrument(s) and the test results are calculated according to CFR 47 Part 15 section 15.31(f)(1) using an extrapolation 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.



Fully or semi anechoic room

Test instruments used:

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

6.6 Radiated Emission at Open Field Test Site

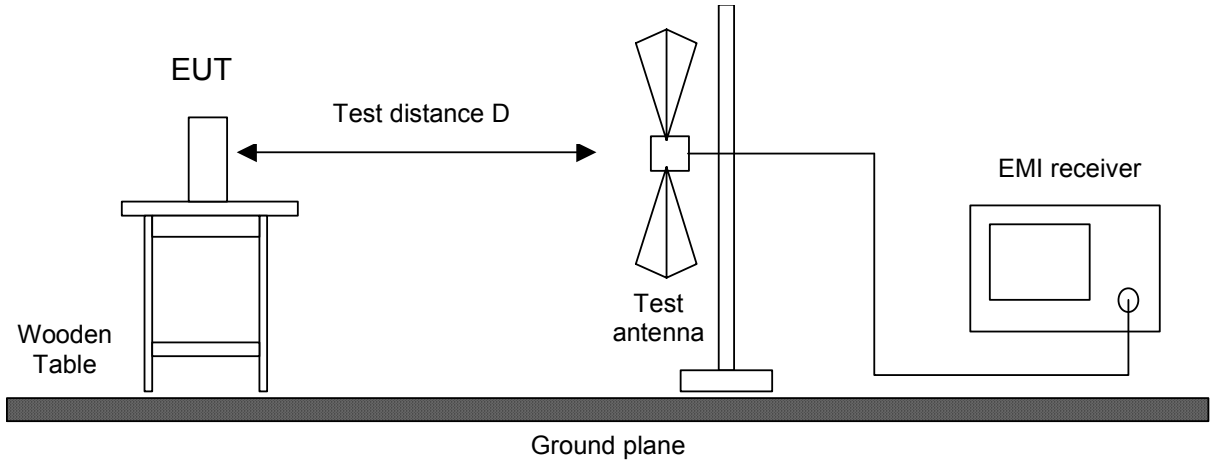
Measurement Procedure:	
Rules and specifications:	CFR 47 Part 15, sections 15.109, 15.215(b) and 15.249 IC RSS-Gen Issue 2, sections 6(a), 7.2.3.2 IC RSS-210 Issue 7, section A2.9
Guide:	ANSI C63.4

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.

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 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.

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.



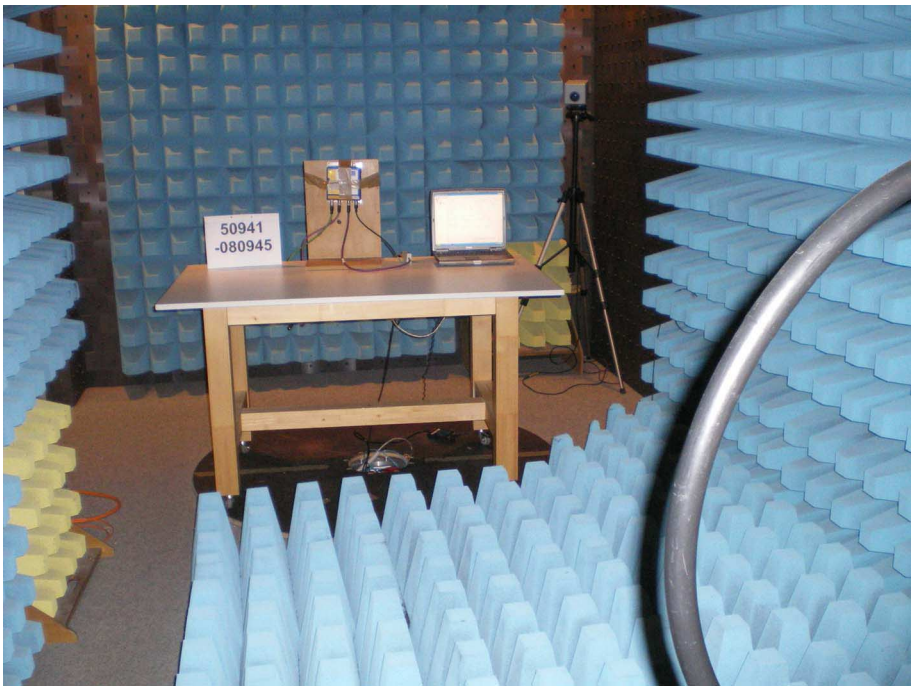
Test instruments used:

Used	Type		Model	Serial No. or ID	Manufacturer
☒	EMI receiver		ESVP	881120/024	Rohde & Schwarz
☒	Biconical antenna	EG 1	HK 116	842204/001	Rohde & Schwarz
☒	Log. per. antenna	EG 1	HL 223	841516/023	Rohde & Schwarz
☒	Open field test site		EG 1	1450	Senton

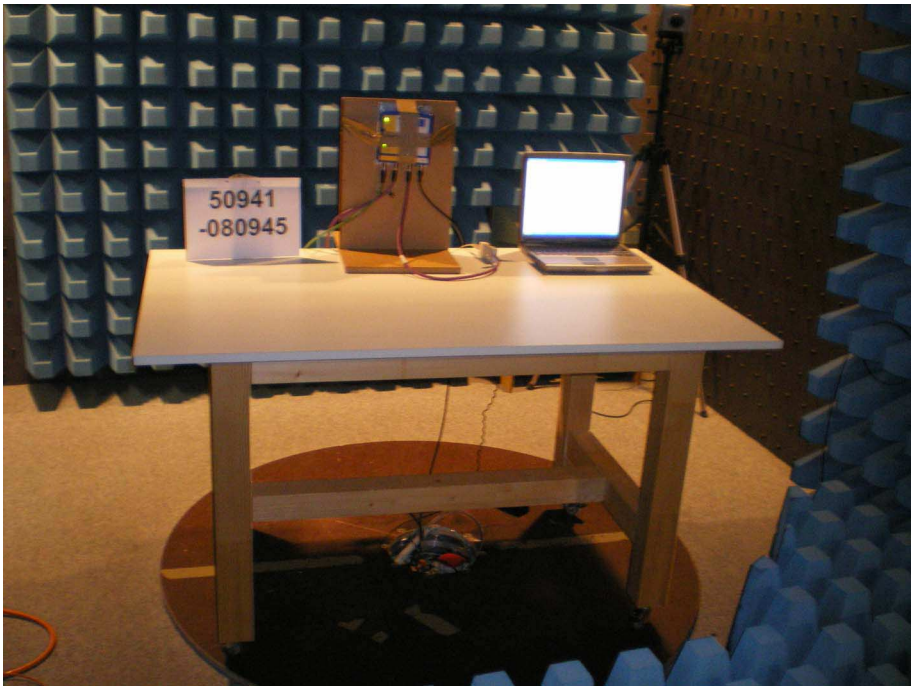
7 Photographs Taken During Testing

Test setup for conducted AC powerline emission measurement

Test setup for radiated emission measurement (fully anechoic room)

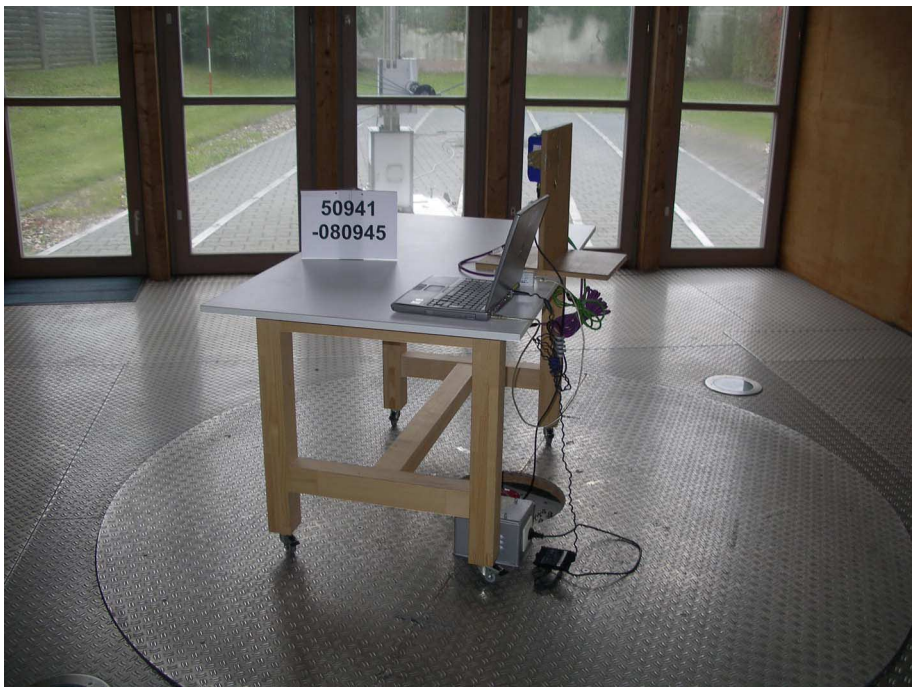


Test setup for radiated emission measurement (fully anechoic room) - continued -



Test setup for radiated emission measurement (open field test site)

Test setup for radiated emission measurement (open field test site) - continued -



8 Test Results for Transmitter

FCC CFR 47 Parts 2 and 15			
Section(s)	*Test*	*Page*	*Result*
2.1046(a)	Conducted output power	---	Not applicable
2.202(a)	Occupied bandwidth	26	Recorded
15.204	Antenna requirement	---	Integrated Antenna
15.215(c)	Bandwidth of the emission	34	Test passed
2.201, 2.202	Class of emission	38	Calculated
15.35(c)	Pulse train measurement for pulsed operation	---	Not applicable
15.205(a)	Restricted bands of operation	---	Not applicable
15.247(a)(1)(i)	Channel Bandwidth	39	Recorded
15.247(a)(1)	Hopping channel separation	40	Test passed
15.247(a)(1)(i)	Number of hopping frequencies used	44	Test passed
15.247(a)(1)(i)	Time occupancy on any channel	46	Test passed
15.247(b)(2)	Maximum peak output power	50	Test passed
15.207	Conducted AC powerline emission 150 kHz to 30 MHz	54	Test passed
15.205(b) 15.247	Radiated emission 9 kHz to 30 MHz	56	Test passed
15.205(b) 15.215(b) 15.247(d)	Radiated emission 30 MHz to 25 GHz	57	Test passed
15.247(i) 2.1093	RF exposure requirement	60	Test passed

IC RSS-Gen Issue 2			
Section(s)	*Test*	*Page*	*Result*
4.8	Transmitter output power (conducted)	---	Not applicable
4.6.1	Occupied Bandwidth	26	Recorded
3.2(h), 8	Designation of emissions	38	Calculated
4.5	Pulsed operation	---	Not applicable
7.2.2	Transmitter AC power lines conducted emissions 150 kHz to 30 MHz	54	Test passed
5.5	Exposure of Humans to RF Fields	61	Exempted from SAR and RF evaluation

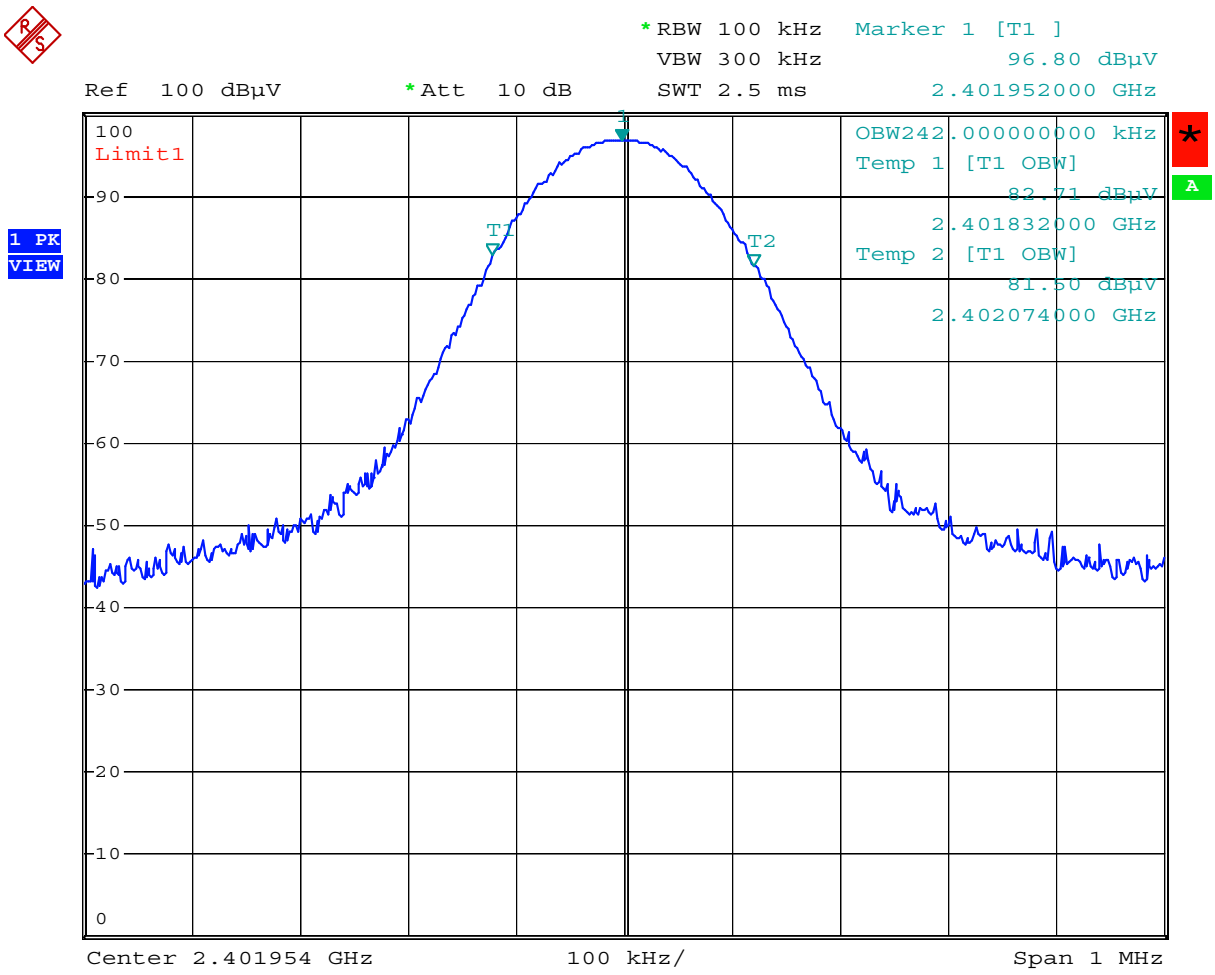
IC RSS-210 Issue 7			
Section(s)	*Test*	*Page*	*Result*
2.2(a)	Restricted bands and unwanted emission frequencies	---	Not applicable
7.1.4	Antenna requirement	---	Integrated antenna
A8.1(c)	Channel bandwidth	39	Recorded
A8.1(b)	Hopping channel separation	40	Test passed
A8.1(c)	Number of hopping frequencies used	44	Test passed
A8.1(c)	Time occupancy on any channel	46	Test passed
A8.4(1)	Maximum output power	50	Test passed
2.2(b)(c) 2.6 A8.5	Unwanted emissions 9 kHz to 30 MHz	56	Test passed
2.2(b)(c) 2.6 A8.5	Unwanted emissions 30 MHz to 25 GHz	57	Test passed

8.1 Occupied Bandwidth

Rules and specifications:	CFR 47 Part 2, section 2.202(a) ANSI C63.4, annex H.6	
Guide:	ANSI C63.4	
Description:	The occupied bandwidth according to CFR 47 Part 2, section 2.202(a), is measured as the 99% emission bandwidth, i.e. below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5% of the total mean power radiated by a given emission. The occupied bandwidth according to ANSI C63.4, annex H.6; is measured as the frequency range defined by the points that are 26 dB down relative to the maximum level of the modulated carrier. The resolution bandwidth of the spectrum analyzer shall be set to a value greater than 5.0% of the allowed bandwidth. If no bandwidth specifications are given, the following guidelines are used:	
	Fundamental frequency	Minimum resolution bandwidth
	9 kHz to 30 MHz	1 kHz
	30 MHz to 1000 MHz	10 kHz
	1000 MHz to 40 GHz	100 kHz
	The video bandwidth shall be at least three times greater than the resolution bandwidth.	
Measurement procedure:	Bandwidth Measurements (6.2)	

Comment:	
Date of test:	September 25, 2008
Test site:	Fully anechoic room, cabin no. 2

Occupied Bandwidth (99 %):



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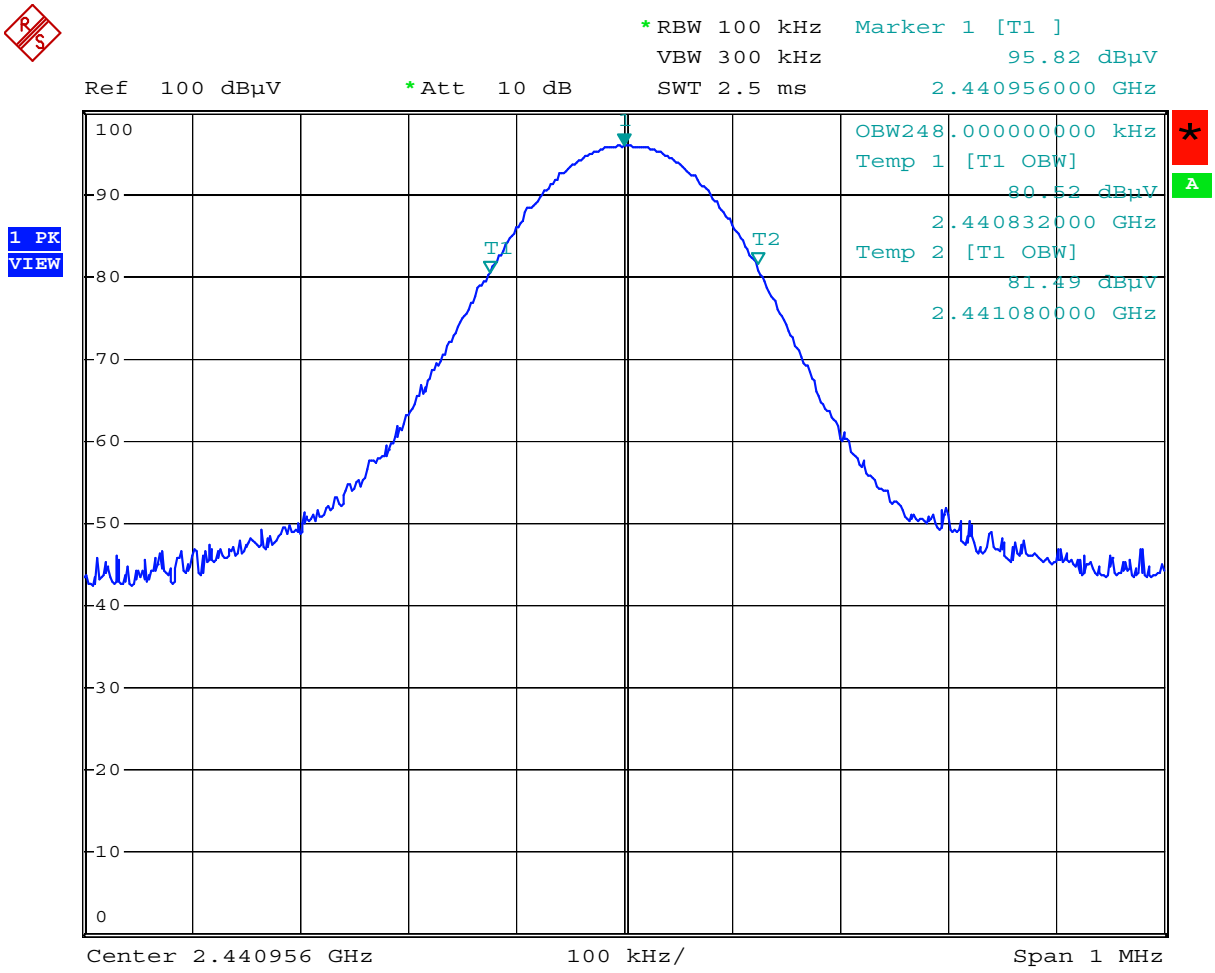
Occupied Bandwidth (99 %):	**242.0 kHz**

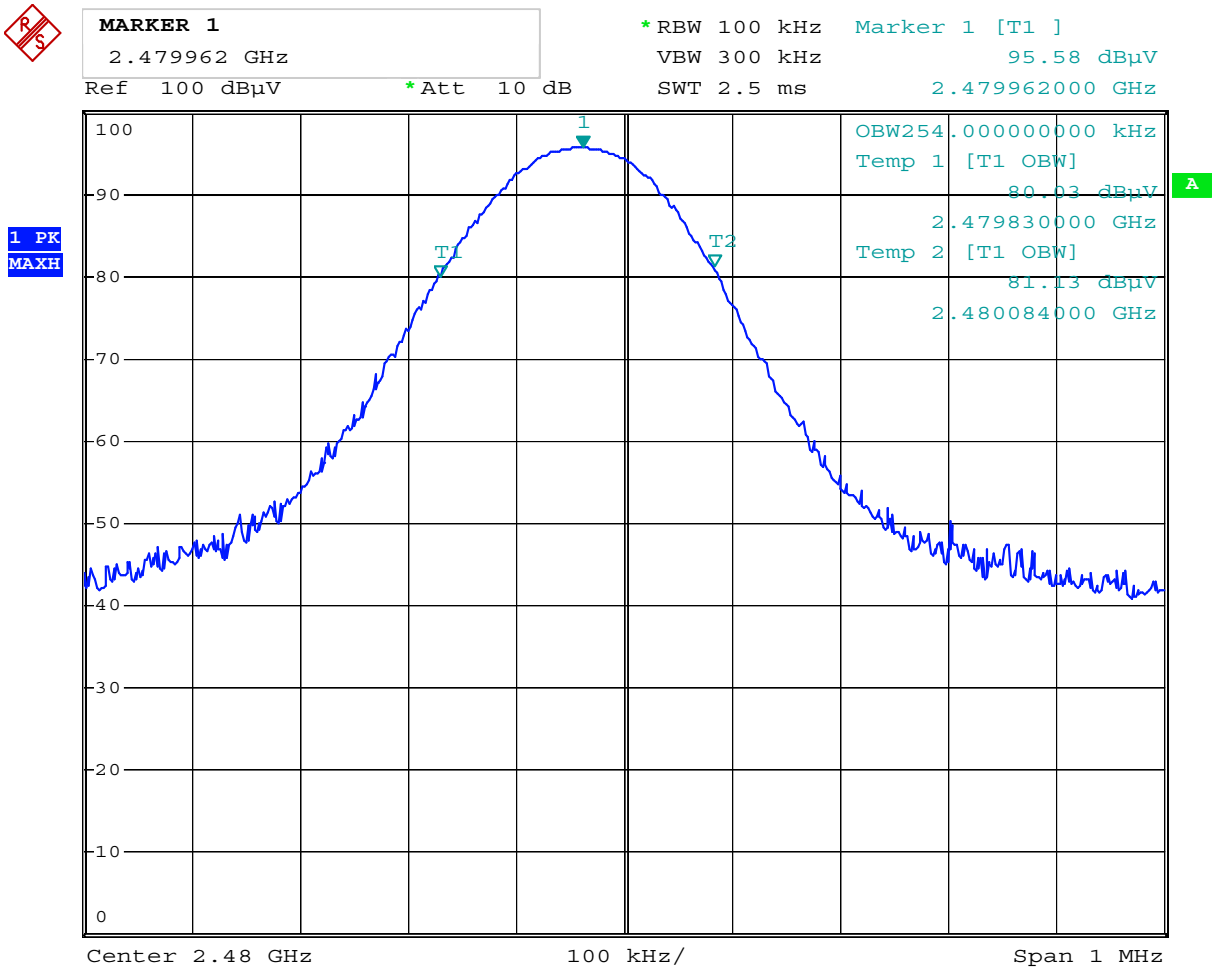
Occupied Bandwidth (99 %) - continued:



Date: 25.SEP.2008 12:26:49

Occupied Bandwidth (99 %):	**248.0 kHz**

Occupied Bandwidth (99 %) - continued:



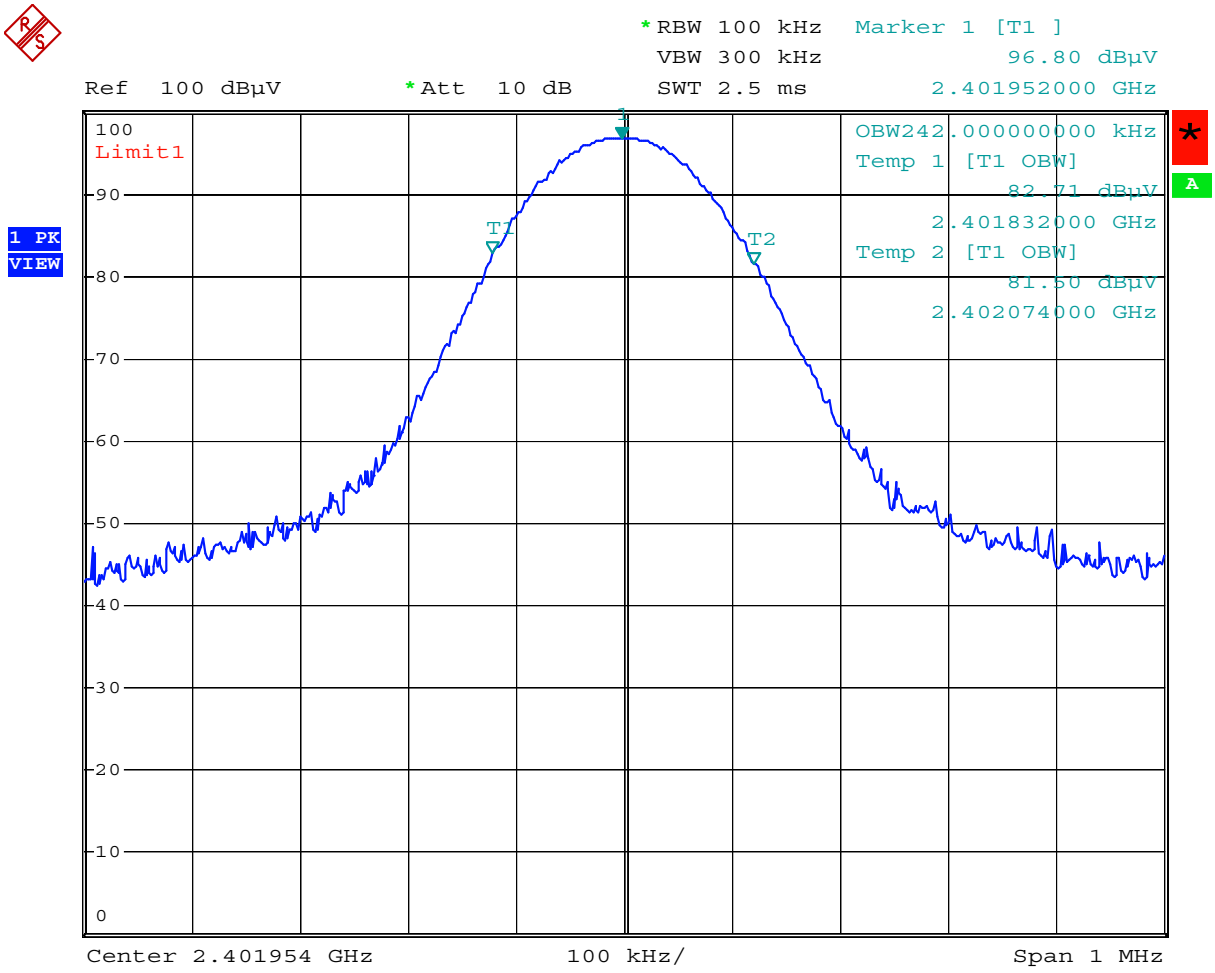
Occupied Bandwidth (99 %):	**254.0 kHz**

Occupied Bandwidth (continued)

Rules and specifications:	IC RSS-Gen Issue 2, section 4.6.1
Guide:	IC RSS-Gen Issue 2, section 4.6.1
Description:	If not specified in the applicable RSS the occupied bandwidth is measuredas the 99% emission bandwidth. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is also recorded. The span between the two recorded frequencies is the occupied bandwidth.
Measurement procedure:	Bandwidth Measurements (6.2)

Comment:	
Date of test:	September 25, 2008
Test site:	Fully anechoic room, cabin no. 2

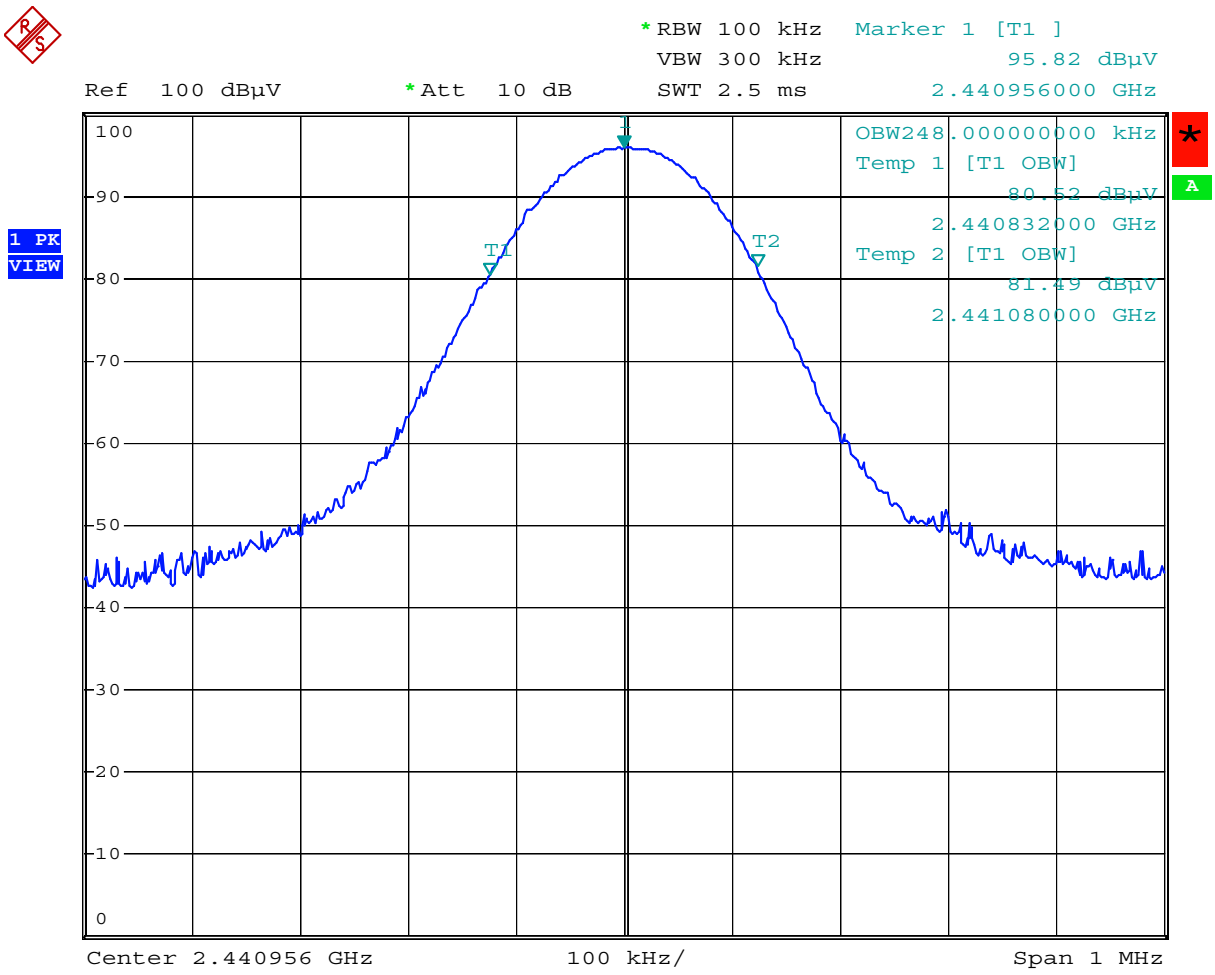
Occupied Bandwidth (99 %):



Date: 25.SEP.2008 12:31:08

Occupied Bandwidth (99 %):	**242.0 kHz**

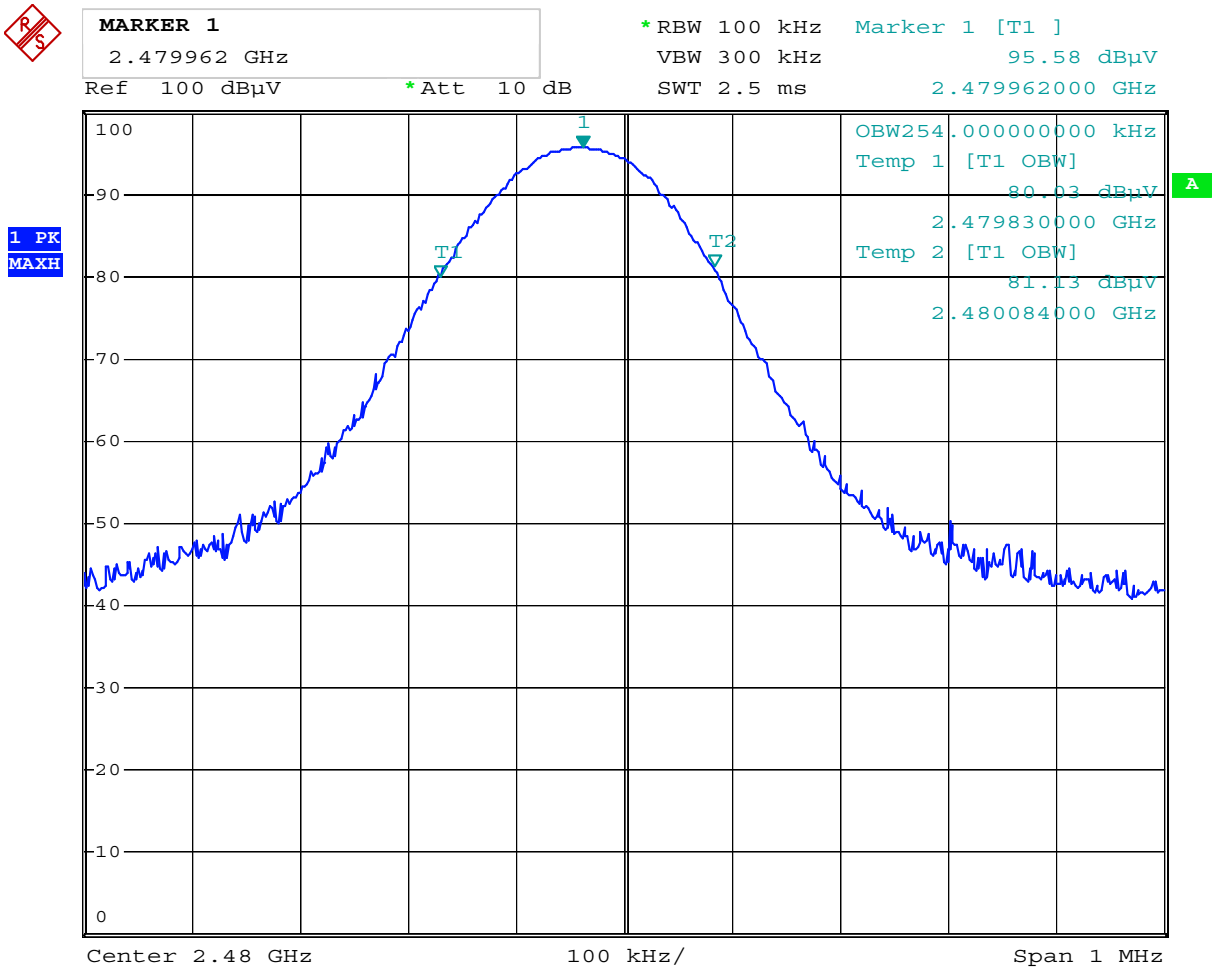
Occupied Bandwidth (99 %) - continued:



Date: 25.SEP.2008 12:26:49

Occupied Bandwidth (99 %):	**248.0 kHz**

Occupied Bandwidth (99 %) - continued:

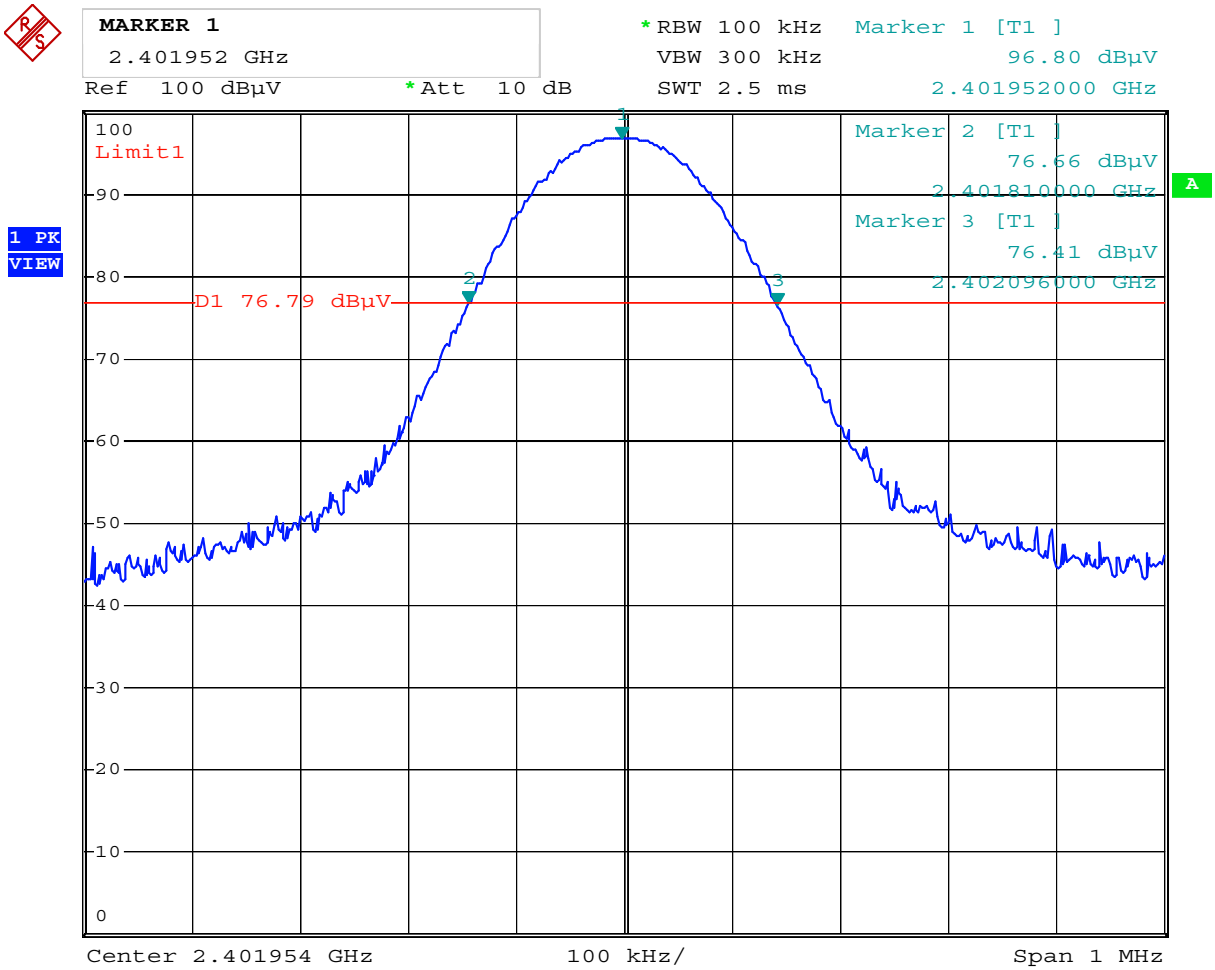


Occupied Bandwidth (99 %):	**254.0 kHz**

8.2 Bandwidth of the Emission

Rules and specifications:	CFR 47 Part 15, section 15.215(c)
Guide:	ANSI C63.4
Description:	The 20 dB bandwidth of the emission is measured as the frequency range defined by the points that are 20 dB down relative to the maximum level of the modulated carrier. For intentional radiators operating under the alternative provisions to the general emission limits the requirement to contain the 20 dB bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation. The resolution bandwidth of the spectrum analyzer shall be set to a value greater than 5.0% of the allowed bandwidth. If no bandwidth specifications are given, the following guidelines are used:
	Fundamental frequency: Minimum resolution bandwidth
	9 kHz to 30 MHz: 1 kHz
	30 MHz to 1000 MHz: 10 kHz
	1000 MHz to 40 GHz: 100 kHz
	The video bandwidth shall be at least three times greater than the resolution bandwidth.
Measurement procedure:	Bandwidth Measurements (6.2)

Comment:	
Date of test:	September 24, 2008
Test site:	Fully anechoic room, cabin no. 2

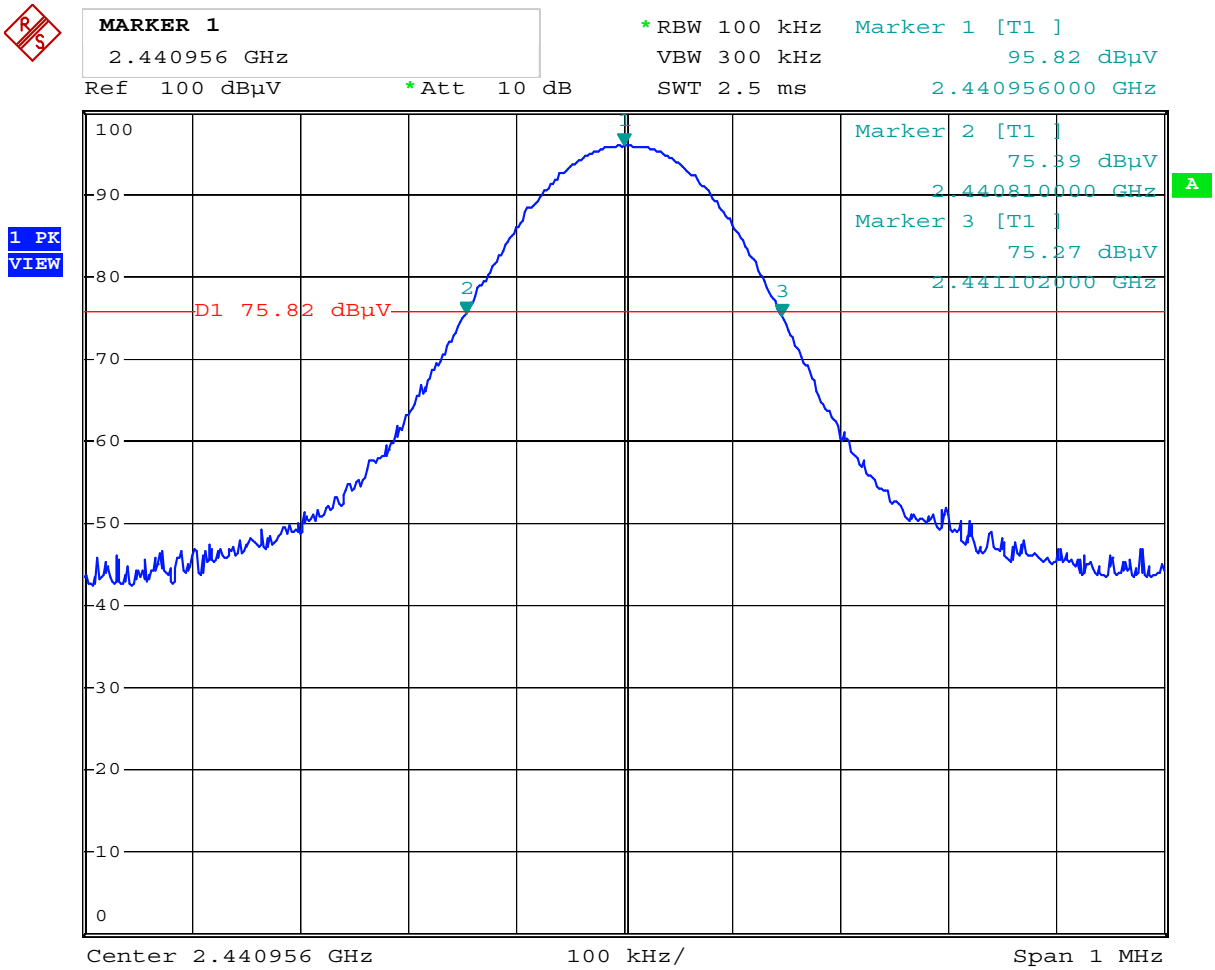


Date: 25.SEP.2008 12:30:37

Permitted frequency band:	**2400.0 - 2483.5 MHz**	
20 dB bandwidth:	**286.0 kHz**	
Carrier frequency stability: Maximum frequency tolerances:	☐ **specified**	☒ **not specified**
Bandwidth of the emission:		**within permitted frequency band[5]:** ☒ **yes** ☐ **no**

Test Result:	Test passed

[5] If a frequency stability is not specified, it is recommended that the fundamental emission is kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

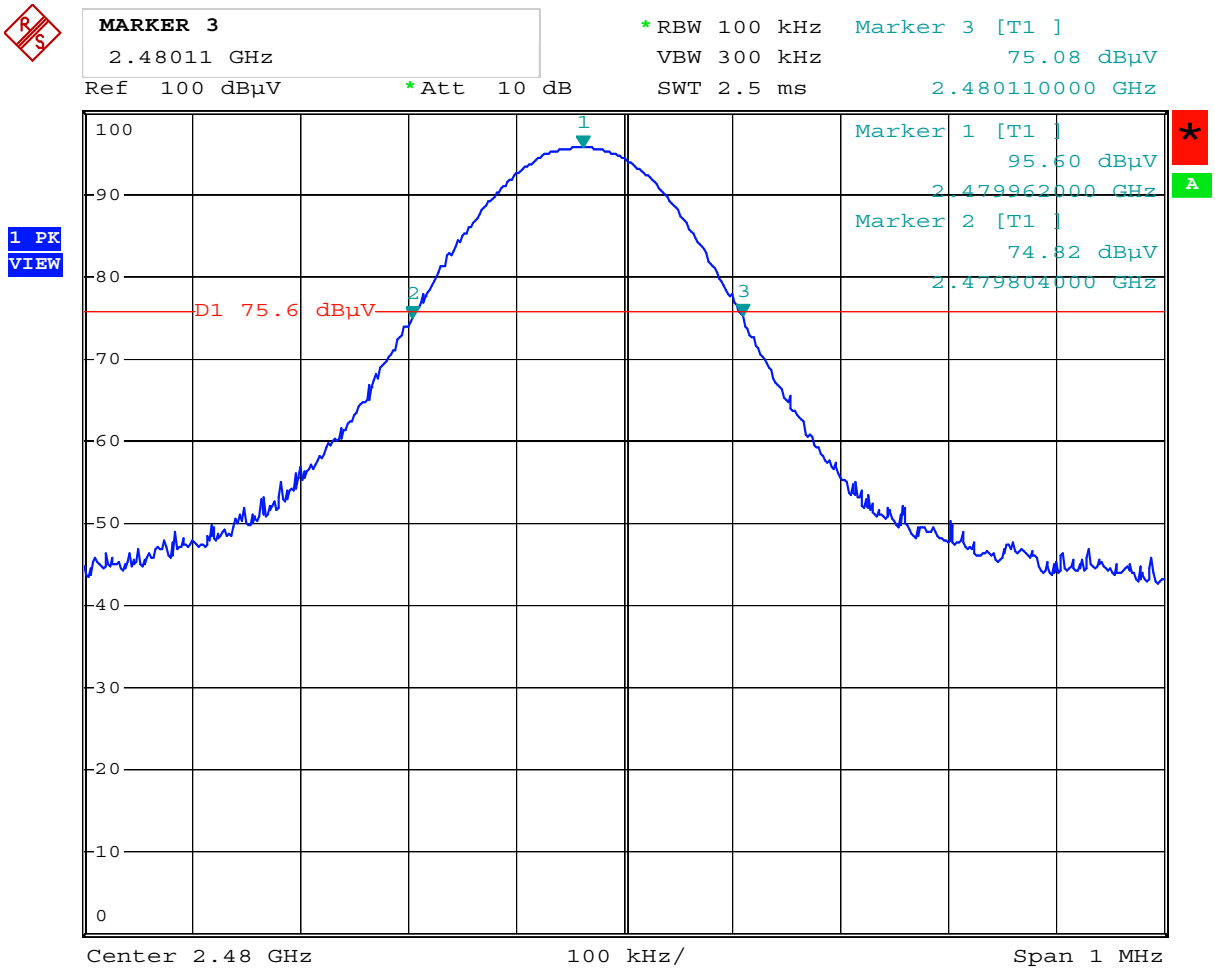


Date: 25.SEP.2008 12:26:30

Permitted frequency band:	**2400.0 - 2483.5 MHz**	
20 dB bandwidth:	**292.6 kHz**	
Carrier frequency stability: Maximum frequency tolerances:	☐ **specified**	☒ **not specified**
Bandwidth of the emission:		**within permitted frequency band[6]:** ☒ **yes** ☐ **no**

Test Result:	Test passed

[6] If a frequency stability is not specified, it is recommended that the fundamental emission is kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.



Date: 25.SEP.2008 12:23:57

Permitted frequency band:	**2400.0 - 2483.5 MHz**	
20 dB bandwidth:	**306 kHz**	
Carrier frequency stability: Maximum frequency tolerances:	☐ **specified**	☒ **not specified**
Bandwidth of the emission:		**within permitted frequency band[7]:** ☒ **yes** ☐ **no**

Test Result:	Test passed

[7] If a frequency stability is not specified, it is recommended that the fundamental emission is kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

8.3 Designation of Emissions

Rules and specifications:	CFR 47 Part 2, sections 2.201 and 2.202 IC RSS-Gen Issue 2, sections 3.2(h) and 8
Guide:	ANSI C63.4 / TRC-43

Type of modulation:	Amplitude Modulation

B_n = Necessary Bandwidth	B_n = 2BK
B = Modulation rate	B = 150 kHz
K = Overall numerical factor	K = 1
Calculation:	$B_n = 2 \cdot (150\ kHz) \cdot 1 = 300\ kHz$

Designation of Emissions:	**300KA1D**

8.4 Channel Bandwidth

Rules and specifications:	CFR 47 Part 15, section 15.247(a)(1) IC RSS-210 Issue 7, section A8.1(a)
Guide:	ANSI C63.4
Limit:	Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.
Measurement procedure:	Radiated Emission in Fully or Semi Anechoic Room (6.5)

Comment:	Please see 8.2 Bandwidth of the Emission for details.
Date of test:	September 24, 2008
Test site:	Fully anechoic room, cabin no. 2
Test distance:	3 meters

Frequency (MHz)	Channel Bandwith (kHz)
2402	286.0
2441	292.6
2480	306.0

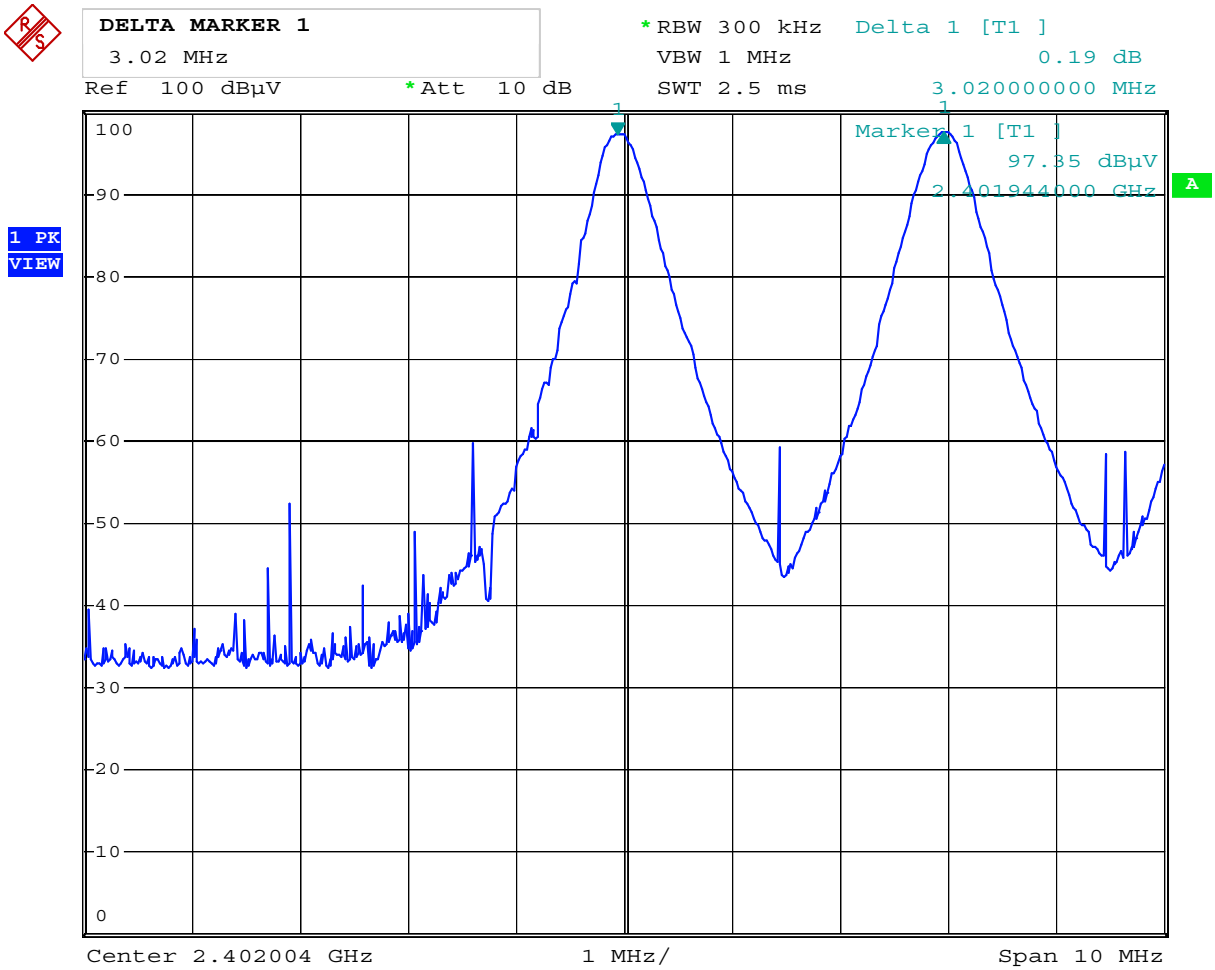
8.5 Hopping channel separation

Rules and specifications:	CFR 47 Part 15, section 15.247(a)(1) IC RSS-210 Issue 7, section A8.1(b)
Guide:	ANSI C63.4
Limit:	Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the opping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400 - 2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.
Measurement procedure:	Radiated Emission in Fully or Semi Anechoic Room (6.5)

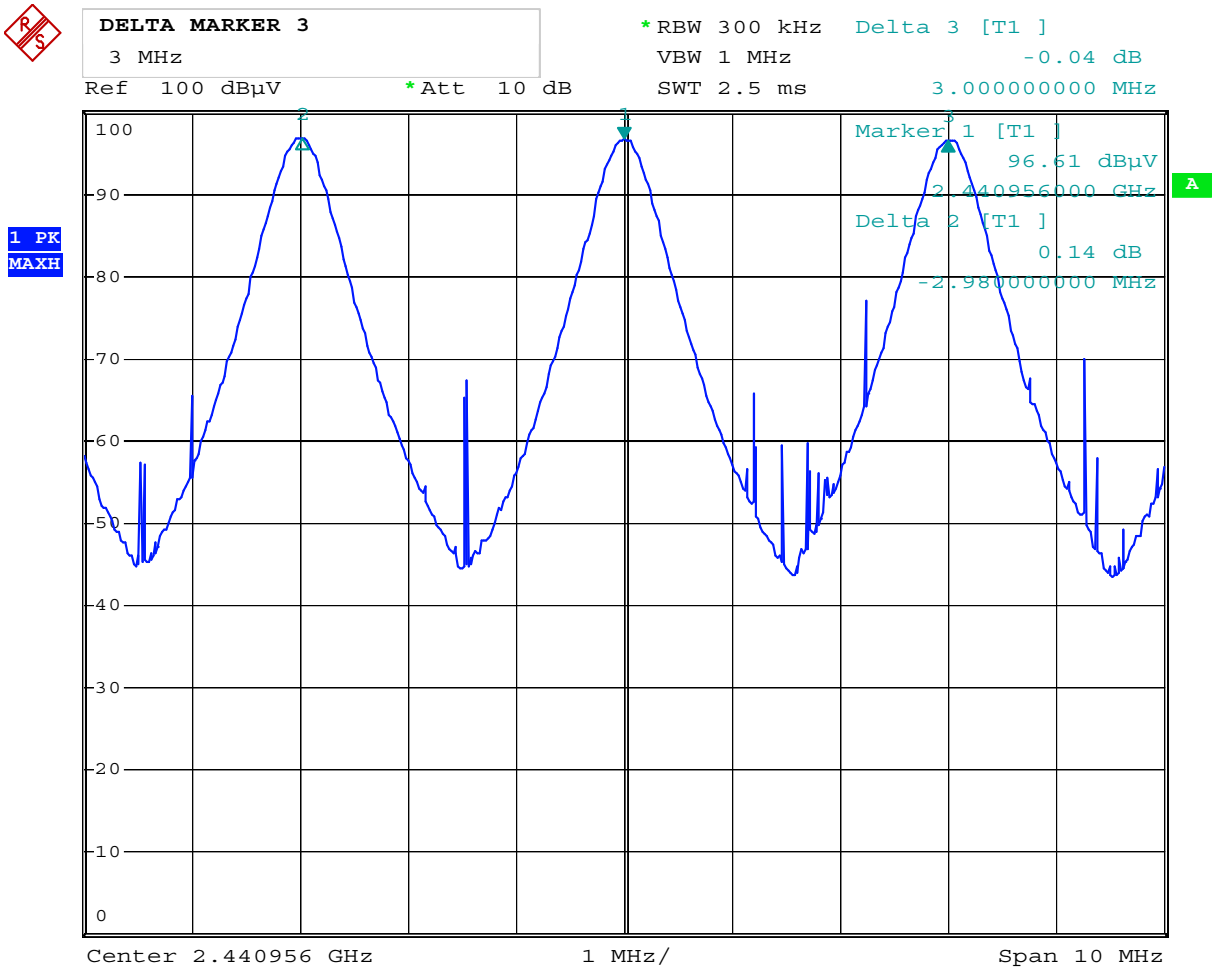
Comment:	
Date of test:	September 25, 2008
Test site:	Fully anechoic room, cabin no. 2
Test distance:	3 meters

Frequency (MHz)	Channel separation (kHz)	Limit (kHz)	Result
2402	3020	286.0	Pass
2441	3000	292.6	Pass
2480	3020	306.0	Pass

Test Result:	Test passed



Date: 25.SEP.2008 12:36:19



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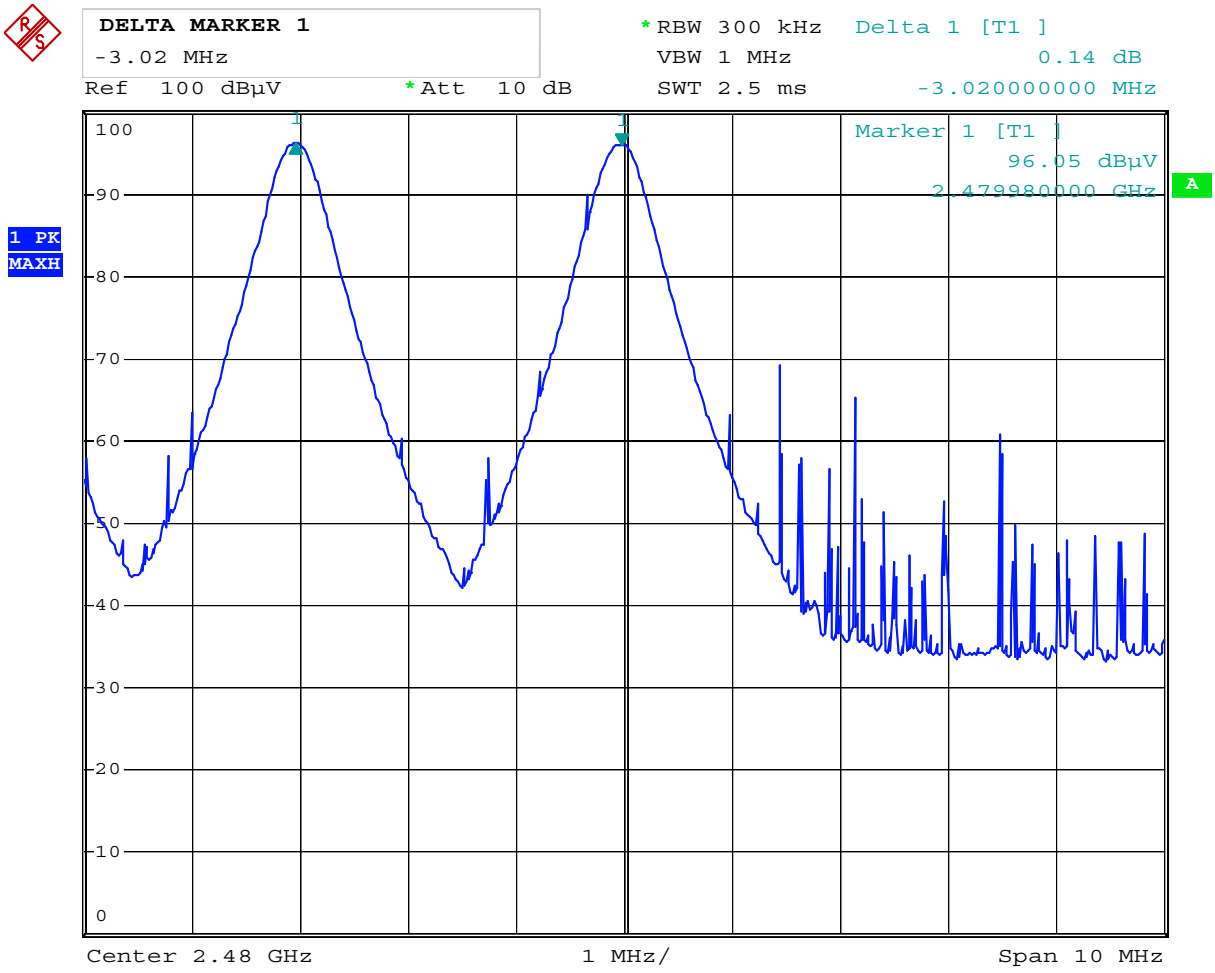


Date: 25.SEP.2008 12:38:27

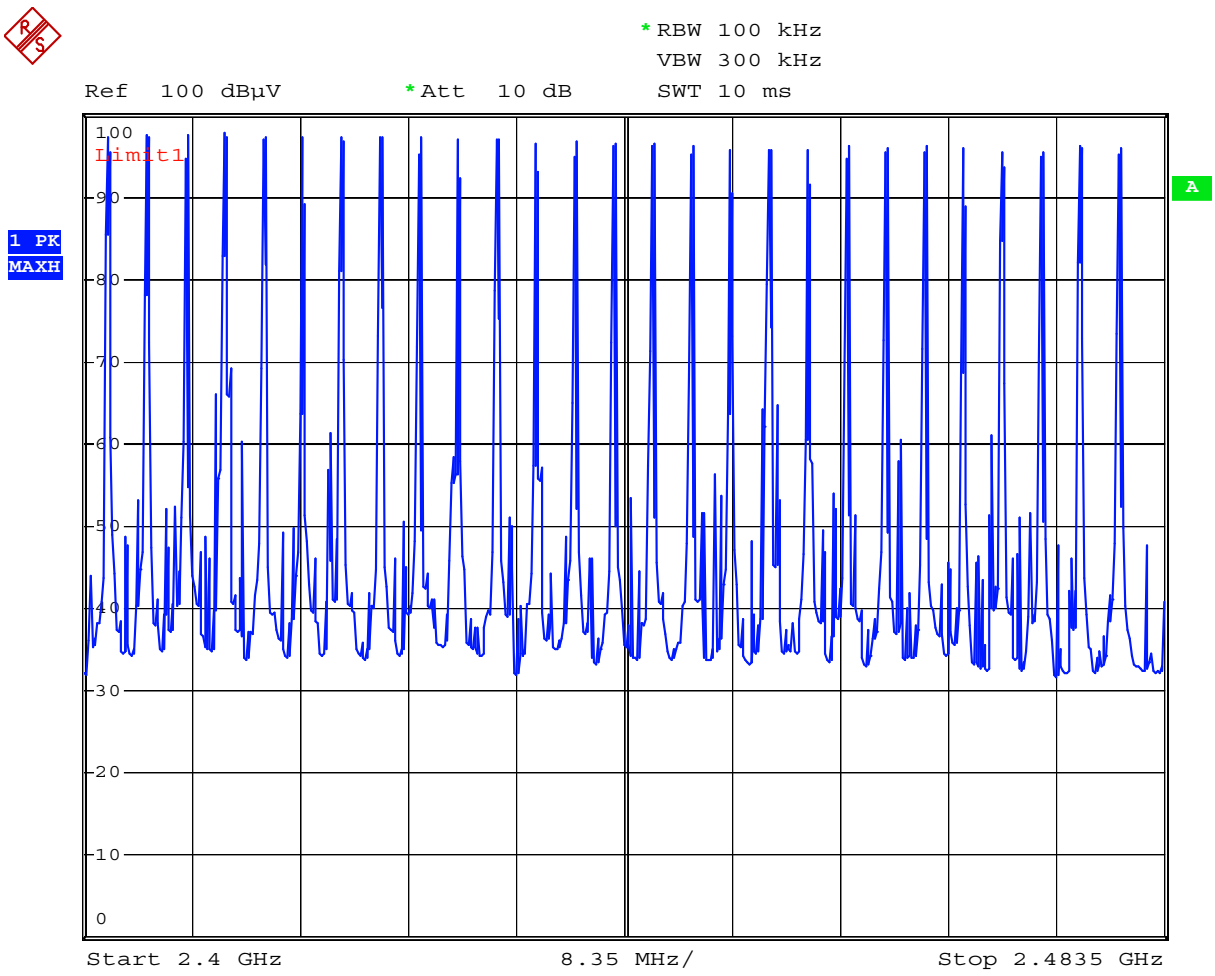
8.6 Number of hopping frequencies used

Rules and specifications:	CFR 47 Part 15, section 15.247(a)(1)(iii) IC RSS-210 Issue 7, section A8.1(d)
Guide:	ANSI C63.4
Limit:	Frequency hopping systems in the 2400 - 2483.5 MHz band shall use at least 15 channels.
Measurement procedure:	Radiated Emission in Fully or Semi Anechoic Room (6.5)

Comment:	
Date of test:	September 25, 2008
Test site:	Fully anechoic room, cabin no. 2
Test distance:	3 meters

Frequencies	Limit	Result
27	15	Pass

Test Result:	Test passed



Date: 25.SEP.2008 12:35:05

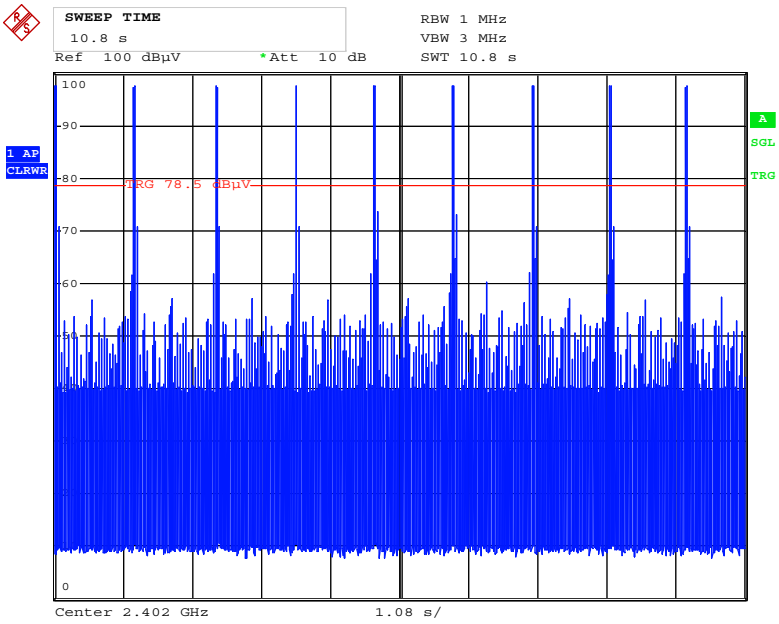
8.7 Time occupancy on any channel

Rules and specifications:	CFR 47 Part 15, section 15.247(a)(1)(iii) IC RSS-210 Issue 7, section A8.1(d)
Guide:	ANSI C63.4
Limit:	The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.
Measurement procedure:	Radiated Emission in Fully or Semi Anechoic Room (6.5)

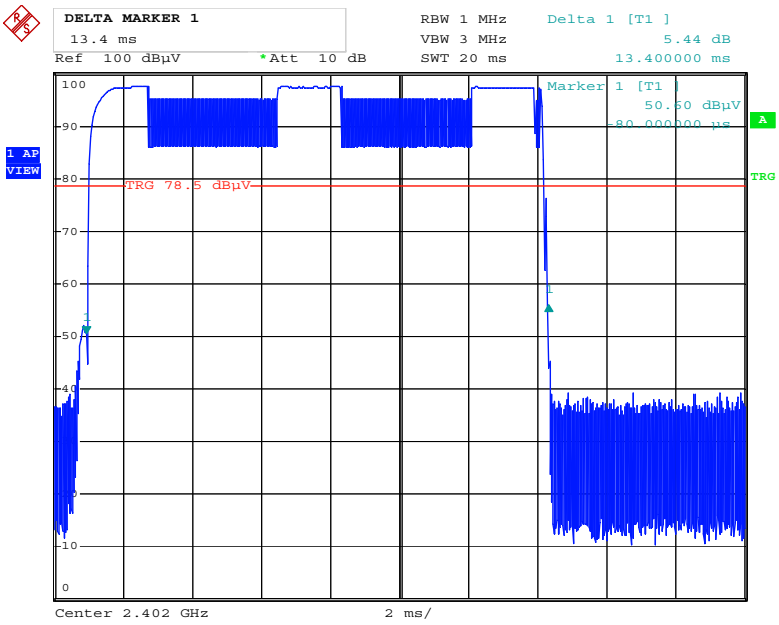
Comment:	
Date of test:	
Test site:	Fully anechoic room, cabin no. 2
Test distance:	3 meters

Frequency (MHz)	Time occupancy (ms in a 10.8 s period)	Limit (ms in a 10.8 s period)	Result
2402	120.60	400	Pass
2441	120.96	400	Pass
2480	120.60	400	Pass

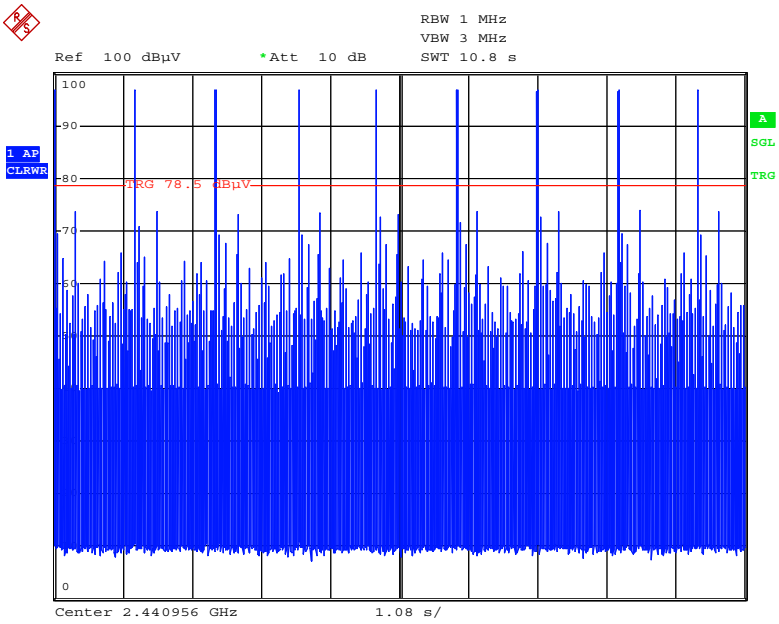
Test Result:	Test passed



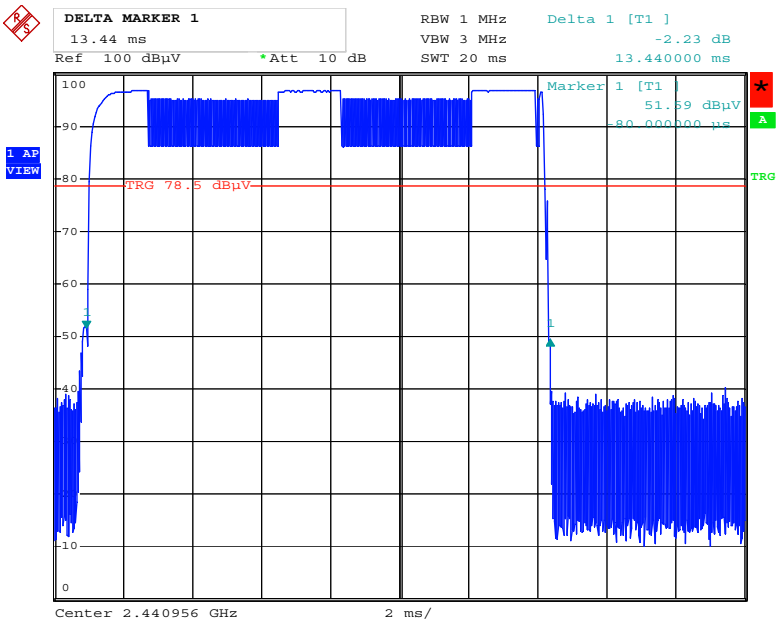
Date: 25.SEP.2008 12:44:06



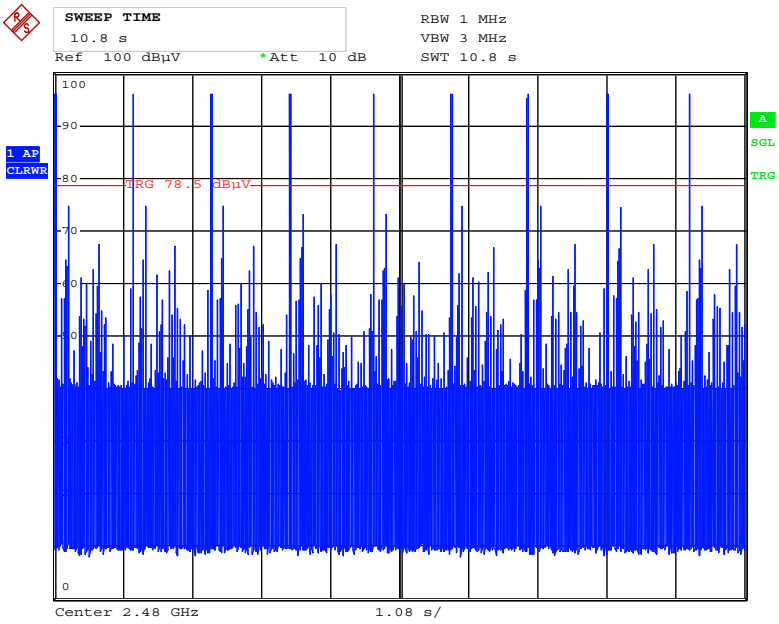
Date: 25.SEP.2008 12:44:56



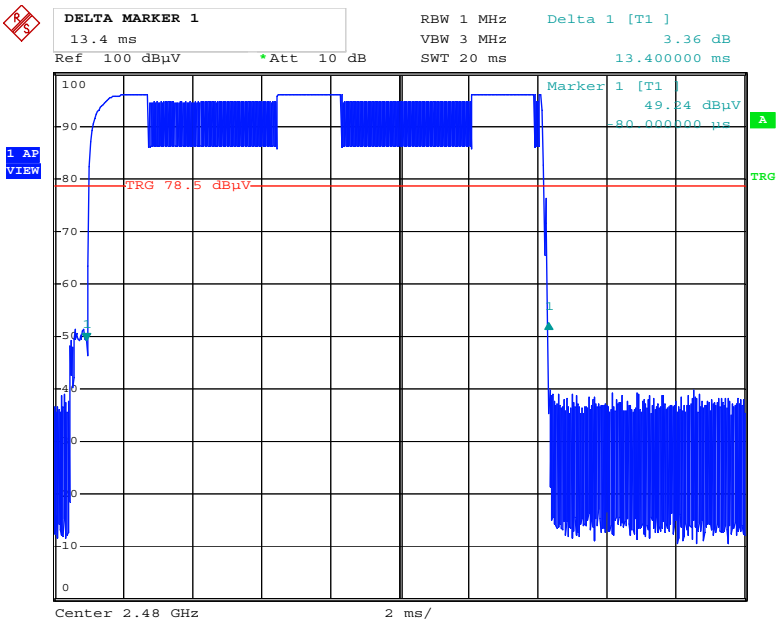
Date: 25.SEP.2008 12:43:32



Date: 25.SEP.2008 12:42:59



Date: 25.SEP.2008 12:40:51



Date: 25.SEP.2008 12:42:25

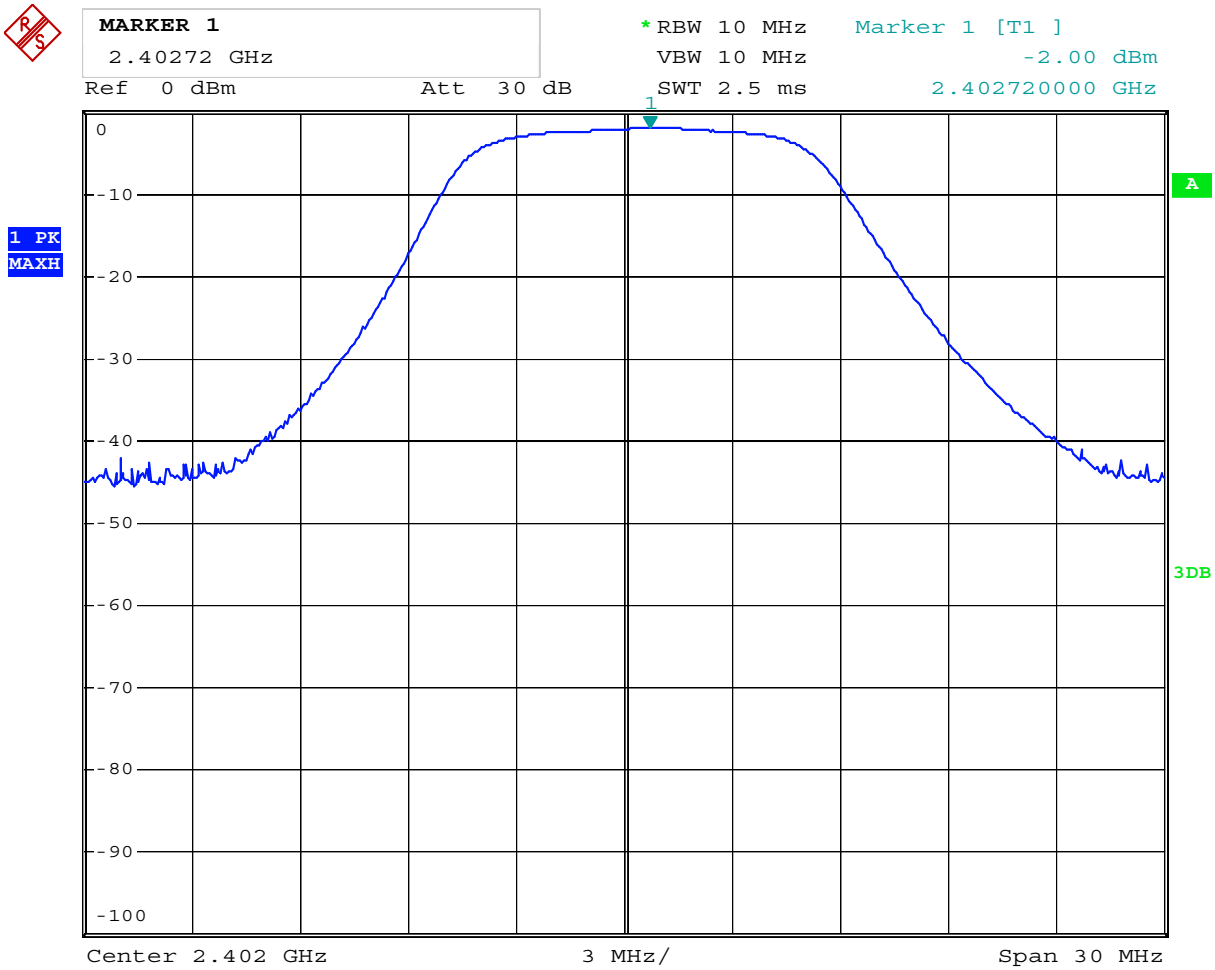
8.8 Maximum output power

Rules and specifications:	CFR 47 Part 15, section 15.247(b)(1),(4) IC RSS-210 Issue 7, section A8.4(1)
Guide:	ANSI C63.4
Limit:	For frequency hopping systems operating in the 2400 - 2483.5 MHz band employing at least 75 non-overlapping channels the maximum peak conducted power ist 1 W (30 dBm). For all other frequency hopping systems 0.125 W (21 dBm). If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
Measurement procedure:	Conducted Output Power (6.1)

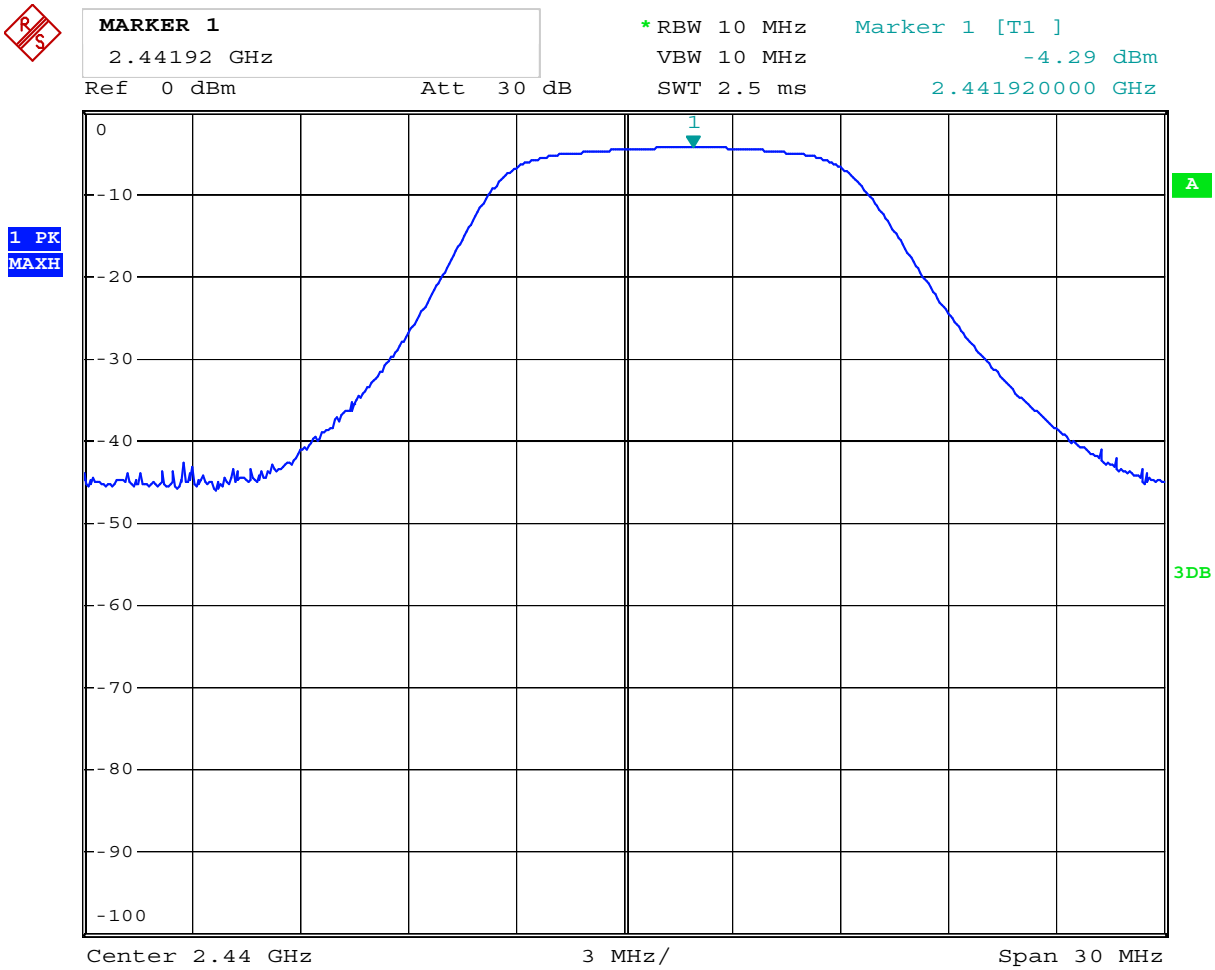
Comment:	
Date of test:	September 30, 2008
Test site:	Fully anechoic room, cabin no. 2
Directional gain of antenna:	10 dBi

Frequency (MHz)	Output power (dBm)	Limit (dBm)	Result
2402	-2.00	17.0	Pass
2441	-4.29	17.0	Pass
2480	-2.46	17.0	Pass

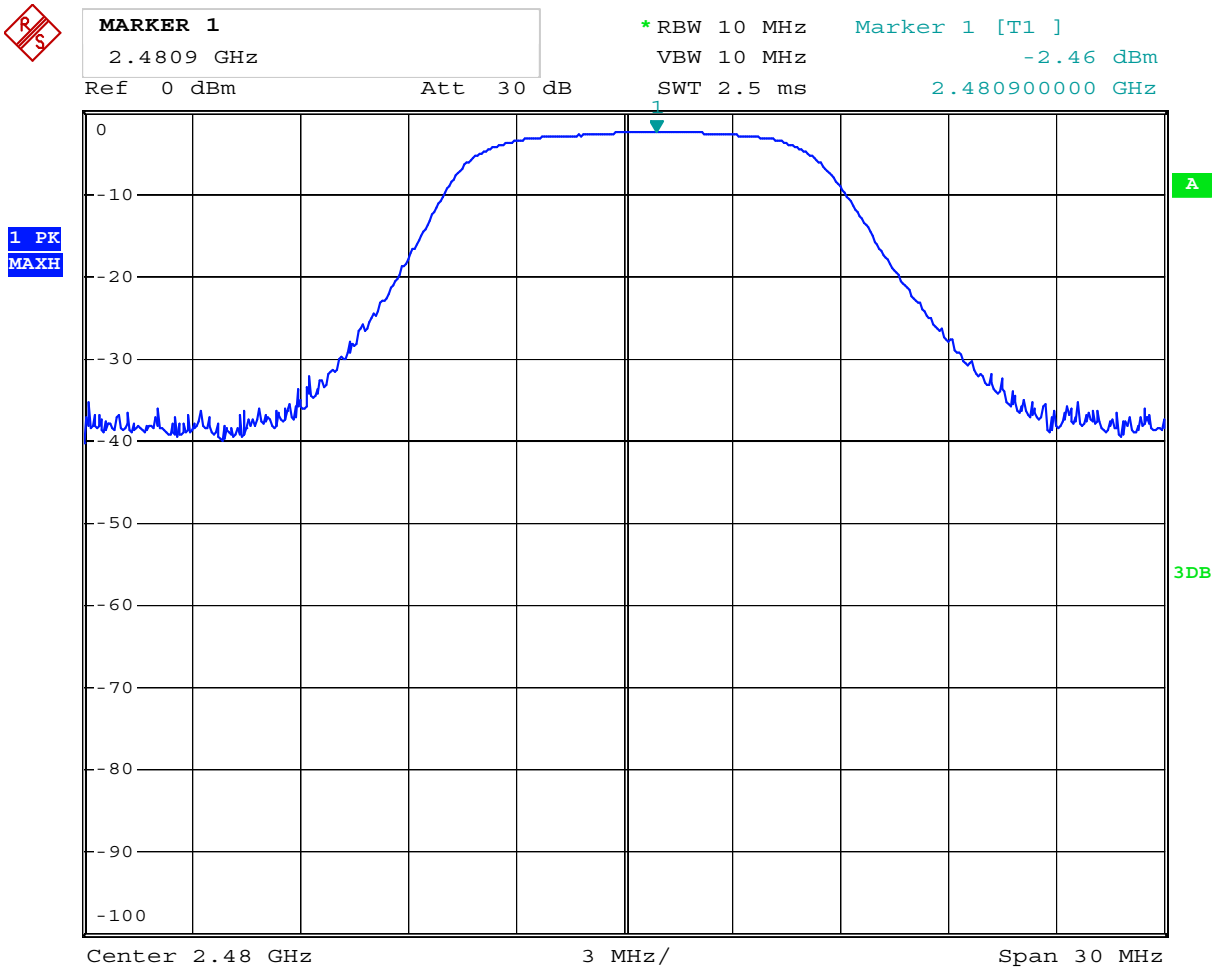
Test Result:	Test passed



Date: 30.SEP.2008 11:13:38



Date: 30.SEP.2008 11:13:18



Date: 30.SEP.2008 11:12:13

8.9 Conducted Powerline Emission Measurement 150 kHz to 30 MHz

Rules and specifications:	CFR 47 Part 15, section 15.207 IC RSS-Gen Issue 2, section 7.2.2		
Guide:	ANSI C63.4 / CISPR 22		
Limit:	Frequency of Emission (MHz)	Conducted Limit (dBµV)	
		Quasi-peak	Average
	0.15 - 0.5 0.5 - 5 5 - 30	66 to 56 56 60	56 to 46 46 50
Measurement procedure:	Conducted AC Powerline Emission (6.3)		

Comment:	
Date of test:	September 24, 2008
Test site:	Shielded room, cabin no. 4

Test Result:	Test passed

Tested on:	L1

Frequency (MHz)	Detector	Reading Value (dBµV)	Correction Factor (dB)	Final Value (dBµV)	Limit (dBµV)	Margin (dB)
0.445	Quasi-Peak	35.5	0.0	35.5	57.0	21.5
0.660	Quasi-Peak	36.5	0.0	36.5	56.0	**19.5**
0.755	Quasi-Peak	35.0	0.0	35.0	56.0	21.0
0.990	Quasi-Peak	35.1	0.0	35.1	56.0	20.9
1.095	Quasi-Peak	33.6	0.0	33.6	56.0	22.4
1.530	Quasi-Peak	33.2	0.0	33.2	56.0	22.8
1.545	Quasi-Peak	32.2	0.0	32.2	56.0	23.8
2.190	Quasi-Peak	30.8	0.0	30.8	56.0	25.2

Tested on:	N

Frequency (MHz)	Detector	Reading Value (dBµV)	Correction Factor (dB)	Final Value (dBµV)	Limit (dBµV)	Margin (dB)
0.640	Quasi-Peak	35.2	0.0	35.2	56.0	**20.8**
0.865	Quasi-Peak	34.1	0.0	34.1	56.0	21.9
2.720	Quasi-Peak	31.4	0.0	31.4	56.0	24.6
3.250	Quasi-Peak	32.0	0.0	32.0	56.0	24.0
3.605	Quasi-Peak	29.3	0.0	29.3	56.0	26.7

Sample calculation of final values:

Final Value (dBµV) = Reading Value (dBµV) + Correction Factor (dB)

8.10 Radiated Emission Measurement 9 kHz to 30 MHz

Rules and specifications:	CFR 47 Part 15, sections 15.205 and 15.209 IC RSS-210 Issue 7, sections 2.2 and 2.6			
Guide:	ANSI C63.4			
Limit:	Frequency of Emission (MHz)	Field Strength (µV/m)	Field Strength (dBµV/m)	Measurement Distance d (meters)
	0.009 - 0.490	2400/F(kHz)	67.6 - 20 · log(F(kHz))	300
	0.490 - 1.705	24000/F(kHz)	87.6 - 20 · log(F(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 (6.4)			

Comment:	
Date of test:	September 24, 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

8.11 Radiated Emission Measurement 30 MHz to 25 GHz

Rules and specifications:	CFR 47 Part 15, sections 15.215(b) and 15.247 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 (6.5) Radiated Emission at Open Field Test Site (6.6)		

Test Result:	Test passed

Comment:	
Mode:	Transmitting continuously with 2402 MHz
Date of test:	September 24, 2008 September 25, 2008
Test site:	Frequencies ≤ 1 GHz: Open field test site Frequencies > 1 GHz: Fully anechoic room, cabin no. 2
Test distance:	Frequencies ≤ 8.2 GHz: 3 meters Frequencies > 8.2 GHz: 1 meters Frequencies > 18 GHz: 0.5 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)
144.030	horizontal	Quasi-Peak	19.0	13.7		32.7	76.1	43.4
224.960	horizontal	Quasi-Peak	6.5	17.2		23.7	76.1	52.4
224.970	vertical	Quasi-Peak	7.4	17.2		24.6	76.1	51.5
384.000	horizontal	Quasi-Peak	15.1	18.2		33.3	76.1	42.8
767.960	horizontal	Quasi-Peak	7.3	24.2		31.5	76.1	44.6
832.000	horizontal	Quasi-Peak	12.4	25.2		37.6	76.1	**38.5**
896.400	vertical	Quasi-Peak	-3.0	26.5		23.5	76.1	52.6
2402.000	vertical	Peak	62.7	33.4		96.1		

Sample calculation of final values:

Final Value (dBµV/m) = Reading Value (dBµV) + Correction Factor (dB/m) + Pulse Train Correction (dB)

Comment:	
Mode:	Transmitting continuously with 2441 MHz
Date of test:	September 24, 2008 September 25, 2008
Test site:	Frequencies ≤ 1 GHz: Open field test site Frequencies > 1 GHz: Fully anechoic room, cabin no. 2
Test distance:	Frequencies ≤ 8.2 GHz: 3 meters Frequencies > 8.2 GHz: 1 meters Frequencies > 18 GHz: 0.5 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)
32.987	horizontal	Quasi-Peak	12.8	13.7		26.5	76.4	49.9
33.110	vertical	Quasi-Peak	21.0	13.6		34.6	76.4	41.8
40.750	vertical	Quasi-Peak	13.0	11.7		24.7	76.4	51.7
40.820	horizontal	Quasi-Peak	6.2	11.7		17.9	76.4	58.5
108.030	vertical	Quasi-Peak	23.1	11.3		34.4	43.5	9.1
120.030	vertical	Quasi-Peak	23.6	12.6		36.2	43.5	**7.3**
120.040	horizontal	Quasi-Peak	19.7	12.6		32.3	43.5	11.2
162.898	horizontal	Quasi-Peak	7.8	14.6		22.4	43.5	21.1
768.360	vertical	Quasi-Peak	-3.0	24.2		21.2	76.4	55.2
832.000	horizontal	Quasi-Peak	12.1	25.2		37.3	76.4	39.1
2440.960	horizontal	Peak	62.9	33.5		96.4		
9766.600	horizontal	Peak	9.3	44.2		53.5	76.4	22.8

Sample calculation of final values:

Final Value (dBµV/m) = Reading Value (dBµV) + Correction Factor (dB/m) + Pulse Train Correction (dB)

Comment:	
Mode:	Transmitting continuously with 2480 MHz
Date of test:	September 24, 2008 September 25, 2008
Test site:	Frequencies ≤ 1 GHz: Open field test site Frequencies > 1 GHz: Fully anechoic room, cabin no. 2
Test distance:	Frequencies ≤ 8.2 GHz: 3 meters Frequencies > 8.2 GHz: 1 meters Frequencies > 18 GHz: 0.5 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)
32.990	vertical	Quasi-Peak	20.0	13.7		33.7	77.7	44.0
33.100	horizontal	Quasi-Peak	14.3	13.6		27.9	77.7	49.8
36.090	horizontal	Quasi-Peak	8.7	12.9		21.6	77.7	56.1
38.630	vertical	Quasi-Peak	11.2	12.2		23.4	77.7	54.3
40.800	horizontal	Quasi-Peak	12.9	11.7		24.6	77.7	53.1
108.150	horizontal	Quasi-Peak	17.1	11.3		28.4	43.5	15.1
120.040	vertical	Quasi-Peak	22.2	12.6		34.8	43.5	**8.7**
144.030	horizontal	Quasi-Peak	20.6	13.7		34.3	77.7	43.4
156.100	vertical	Quasi-Peak	10.1	14.4		24.5	77.7	53.2
869.400	horizontal	Quasi-Peak	-3.0	26.4		23.4	77.7	54.3
2479.950	horizontal	Peak	64.1	33.6		97.7		

Sample calculation of final values:

Final Value (dBµV/m) = Reading Value (dBµV) + Correction Factor (dB/m) + Pulse Train Correction (dB)

8.12 RF exposure requirement

Rules and specifications:	CFR 47 Part 15, section 15.247(i) CFR 47 Part 1, sections 1.1307(b)(1)
Guide:	OET Bulletin 65, Edition 97-01
Limits:	Limits for general population / uncontrolled exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time (minutes)
0.3 - 1.34	614	1.63	(100)*	30
1.34 - 30	824 / f	2.19 / f	(180 / f²)*	30
30 - 300	27.5	0.073	0.2	30
300 - 1500	---	---	f/1500	30
1500 - 100000	---	---	1.0	30

f = frequency in MHz
* Plane-wave equivalent power density

Spectral power density		Declared by applicant	Measured
Prediction [8]:	S = P G / 4 π R²		
Where:	S = Power density		
	P = Power input of antenna		
	G = Power gain of the antenna relativ to an isotropic radiator		
	R = Distance to the center of radiation of the antenna		
Maximum output power:	P = -2.00 dBm = 630.96 µW	☒	☒
Antenna gain:	G = 10 dBi = 10		
Prediction distance:	R = 20 cm		
Power density at 20 cm:	**S = 0.00126 mW/cm²**		

Test Result:	Test passed

[8] MPE Prediction of MPE according to equation from page 19 of OET Bulletin 65, Ed. 97-01

8.13 Exposure of Humans to RF Fields

Rules and specifications:	IC RSS-Gen Issue 2, section 5.5
Guide:	IC RSS-102 Issue 2, section 2.5

Exposure of Humans to RF Fields	Applicable	Declared by applicant	Measured	Exemption
The antenna is				
☐ detachable				
The conducted output power (CP in watts) is measured at the antenna connector: CP = **..... W**			☐	
The effective isotropic radiated power (EIRP in watts) is calculated using				
☐ the numerical antenna gain: G = **.....**		☐		
$EIRP = G \cdot CP \Rightarrow EIRP$ = **..... W**				
☐ the field strength[9] in V/m: FS = **..... V/m**			☐	
$EIRP = \frac{(FS \cdot D)^2}{30} \Rightarrow EIRP$ = **..... W**				
with:				
Distance between the antennas in m: D = **..... m**			☐	
☒ not detachable				
A field strength measurement is used to determine the effective isotropic radiated power (EIRP in watts) given by[9]: $EIRP = \frac{(FS \cdot D)^2}{30} \Rightarrow EIRP$ = **1.77 · 10^{-3} W**				
with:				
Field strength in V/m: FS = **97.7 dBµV/m** = **76.74 · 10^{-3} V/m**			☒	
Distance between the two antennas in m: D = **3 m**			☒	
Selection of output power				
The output power TP is the higher of the conducted or effective isotropic radiated power (e.i.r.p.): TP = **1.77 · 10^{-3} W**				

[9] The conversion formula is valid only for properly matched antennas. In other cases the transmitter output power may have to be measured by a terminated measurement when applying the exemption clauses.
If an open area test site is used for field strength measurement, the effect due to the metal ground reflecting plane should be subtracted from the maximum field strength value in order to reference it to free space, before calculating TP.

Exposure of Humans to RF Fields (continued)	Applicable	Declared by applicant	Measured	Exemption
Separation distance between the user and the transmitting device is				
☐ less than or equal to 20 cm ☒ greater than 20 cm		☒		
Transmitting device is				
☐ in the vicinity of the human head ☐ body-worn		☐		
SAR evaluation				
SAR evaluation is required if the separation distance between the user and the device is less than or equal to 20 cm.				
☐ The device operates from 3 kHz up to 1 GHz inclusively and its source-based time-averaged output power is less than, or equal to 200 mW for General Public Use and 1000 mW for Controlled Use.				☐
☐ The device operates above 1 GHz up to 2.2 GHz inclusively and its source-based time-averaged output power is less than, or equal to 100 mW for General Public Use and 500 mW for Controlled Use.				☐
☐ The device operates above 2.2 GHz up to 3 GHz inclusively and its source-based time-averaged output power is less than, or equal to 20 mW for General Public Use and 100 mW for Controlled Use.				☐
☐ The device operates above 3 GHz up to 6 GHz inclusively and its source-based time-averaged output power) is less than, or equal to 10 mW for General Public Use and 50 mW for Controlled Use.				☐
☐ SAR evaluation is documented in test report no.				
RF exposure evaluation				
RF exposure evaluation is required if the separation distance between the user and the device is greater than 20 cm.				
☐ The device operates below 1.5 GHz and its e.i.r.p. is equal to or less than 2.5 W.				☐
☒ The device operates at or above 1.5 GHz and the e.i.r.p. of the device is equal to or less than 5 W.				☐
☐ RF exposure evaluation is documented in test report no.				

9 Test Results for Receiver

FCC CFR 47 Part 15			
Section(s)	*Test*	*Page*	*Result*
15.107	Conducted AC powerline emission 150 kHz to 30 MHz	54	Test passed
15.109	Radiated emission 30 MHz to 12.5 GHz	64	Test passed
15.111(a)	Antenna power conduction emission of receivers 9 kHz to 12.5 GHz	---	Not applicable

IC RSS-Gen Issue 2			
Section(s)	*Test*	*Page*	*Result*
7.2.2	Transmitter AC power lines conducted emissions 150 kHz to 30 MHz	54	Test passed
6(a), 7.2.3.2	Receiver spurious emissions (radiated) 30 MHz to 12.5 GHz	64	Test passed
6(b), 7.2.3.1	Receiver spurious emissions (antenna conducted) 9 kHz to 12.5 GHz	---	Not applicable

9.1 Radiated Emission Measurement 30 MHz to 12.5 GHz

Rules and specifications:	CFR 47 Part 15, section 15.109 (Class B) IC RSS-Gen Issue 2, sections 6(a) and 7.2.3.2		
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
Measurement procedures:	Radiated Emission in Fully or Semi Anechoic Room (6.5) Radiated Emission at Open Field Test Site (6.6)		

Comment:	---
Date of test:	September 24, 2008 September 25, 2008
Test site:	Frequencies ≤ 1 GHz: Open field test site Frequencies > 1 GHz: Fully anechoic room, cabin no. 2
Test distance:	3 meters

Test Result:	Test passed

Frequency (MHz)	Antenna Polarization	Detector	Receiver Reading (dBµV)	Correction Factor (dB/m)	Final Value (dBµV/m)	Limit (dBµV/m)	Margin (dB)
33.060	vertical	Quasi-Peak	19.9	13.7	33.6	40.0	**6.4**
33.100	horizontal	Quasi-Peak	14.3	13.6	27.9	40.0	12.1
36.200	horizontal	Quasi-Peak	11.2	12.9	24.1	40.0	15.9
40.750	vertical	Quasi-Peak	19.0	11.7	30.7	40.0	9.3
40.770	horizontal	Quasi-Peak	14.3	11.7	26.0	40.0	14.0
44.800	horizontal	Quasi-Peak	13.7	11.0	24.7	40.0	15.3
50.560	horizontal	Quasi-Peak	12.6	10.3	22.9	40.0	17.1
59.980	vertical	Quasi-Peak	22.3	9.6	31.9	40.0	8.1
107.990	vertical	Quasi-Peak	23.1	11.3	34.4	43.5	9.1
120.040	vertical	Quasi-Peak	23.7	12.6	36.3	43.5	7.2
158.300	horizontal	Quasi-Peak	7.7	14.4	22.1	43.5	21.4
767.937	vertical	Quasi-Peak	2.8	24.2	27.0	46.0	19.0
832.000	vertical	Quasi-Peak	9.1	25.2	34.3	46.0	11.7
832.020	horizontal	Quasi-Peak	13.2	25.2	38.4	46.0	7.6
893.500	vertical	Quasi-Peak	-3.0	26.5	23.5	46.0	22.5
896.400	horizontal	Quasi-Peak	7.1	26.5	33.6	46.0	12.4
1198.000	vertical	Peak	10.7	28.5	39.3	54.0	14.7

Sample calculation of field final values:

Final Value (dBµV/m) = Reading Value (dBµV) + Correction Factor (dB/m)

10 Referenced Regulations

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

☒	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
☒	CFR 47 Part 15	Code of Federal Regulations Part 15 (Radio Frequency Devices) of the Federal Communication Commission (FCC)	May 4, 2007
☒	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 (published on January 30, 2004)
☒	RSS-Gen	Radio Standards Specification RSS-Gen Issue 2 containing General Requirements and Information for the Certification of Radiocommunication Equimpment, published by Industry Canada	June 2007
☒	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
☐	RSS-310	Radio Standards Specification RSS-310 Issue 1 for Low Power Licence-Ecempt Radiocommunicaton Devices (All Frequency Bands): Category II Equipment, published by Industry Canada	September 2005
☒	RSS-102	Radio Standards Specification RSS-102 Issue 2: Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)	November 2005
☐	ICES-003	Interference-Causing Equipment Standard ICES-003 Issue 4 for Digital Apparatus, published by Industry Canada	February 7, 2004
☒	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
☐	CAN/CSA-CEI/IEC CISPR 22	Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment	2002
☒	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

11 Revision History

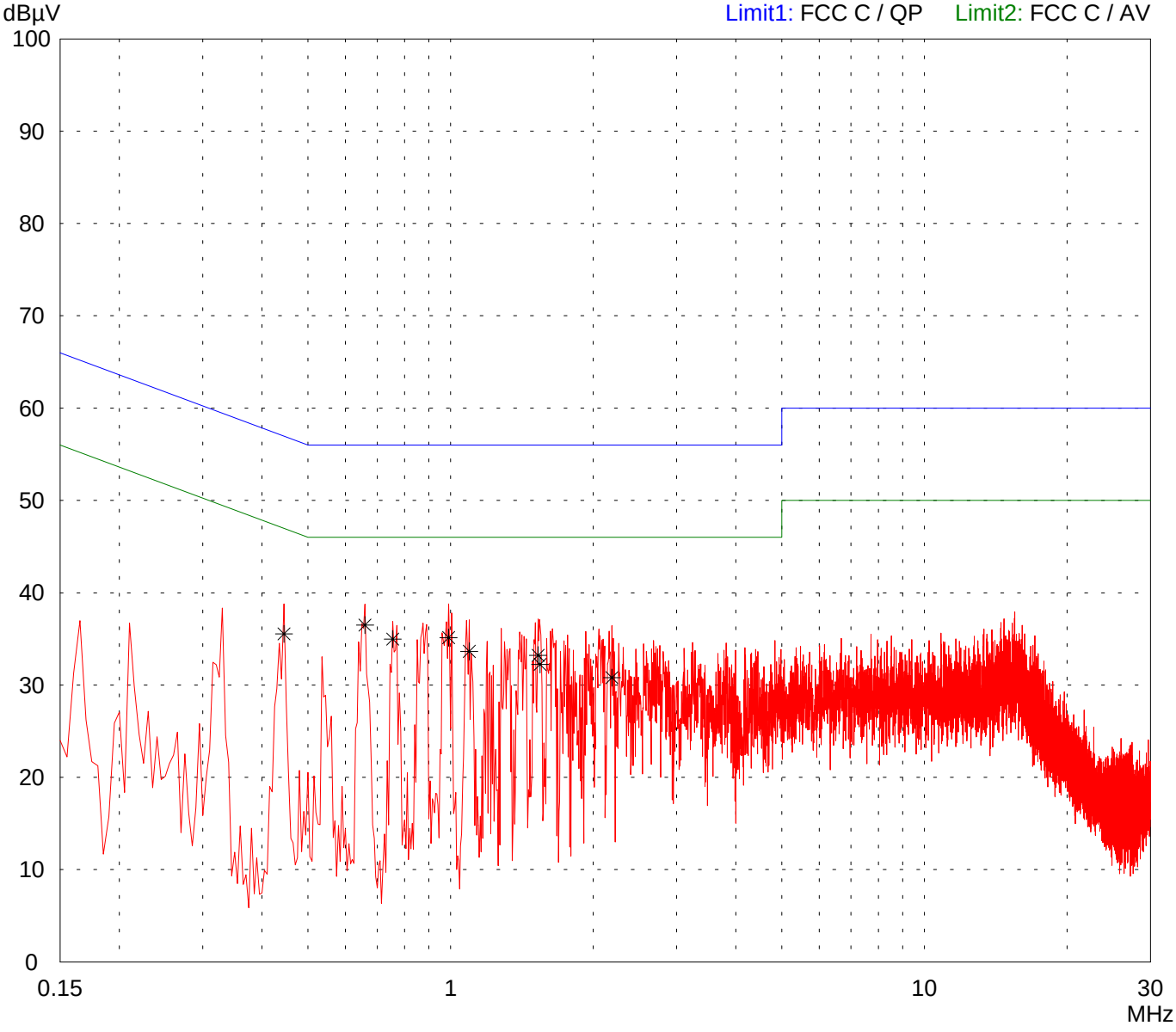
Revision History			
Edition	*Date*	*Issued by*	*Modifications*
1	15.10.2008	M. Steindl	First Edition
2	29.10.2008	C. Jäger	Edition 2 Modification required for FCC Certification Page 15 Measurement Procedures "Radiated Emission in Fully or Semi Anechoic Room" (Test distance of 3 meters for all tests below 8.2 GHz) 4 test sheets "Radiated Emission Test 12.4 GHz, removed (were attached twofold)

12 Charts taken during testing

Conducted Emission Test 150 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - Transmitting continously - With DELL laptop and VariService-USB - With AC/DC adapter
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Shielded room, cabin no. 4	
Tested on: Linecord AC 110 V Phase L1	
Date of test: 09/24/2008 — Operator: M. Steindl	
Test performed: automatically — File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin — 25 Subranges

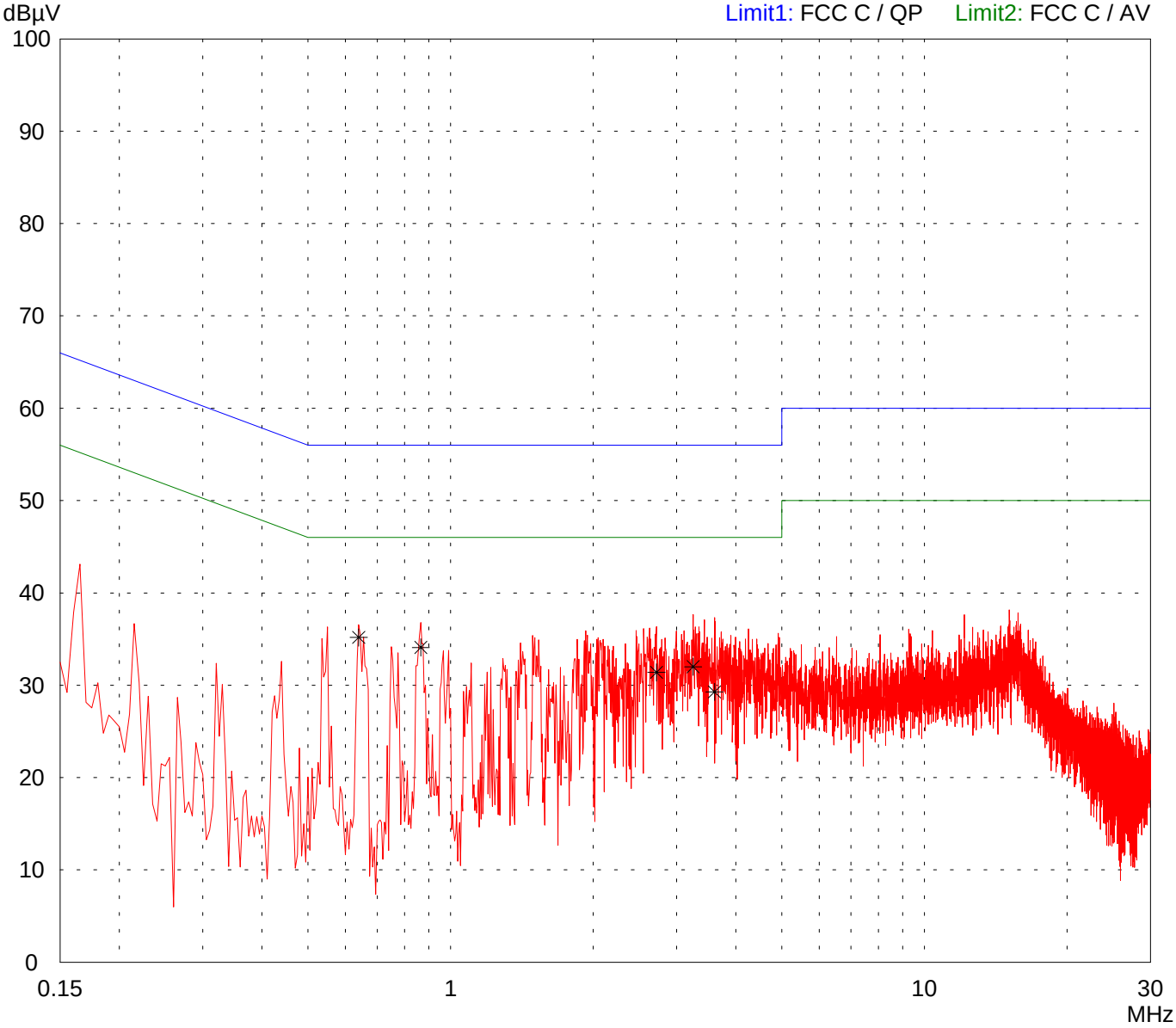


Result: Limit kept	Project file: 50941-080945

Conducted Emission Test 150 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - Transmitting continously - With DELL laptop and VariService-USB - With AC/DC adapter
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Shielded room, cabin no. 4	
Tested on: Linecord AC 110 V Phase N	
Date of test: 09/24/2008 — Operator: M. Steindl	
Test performed: automatically — File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin — 25 Subranges

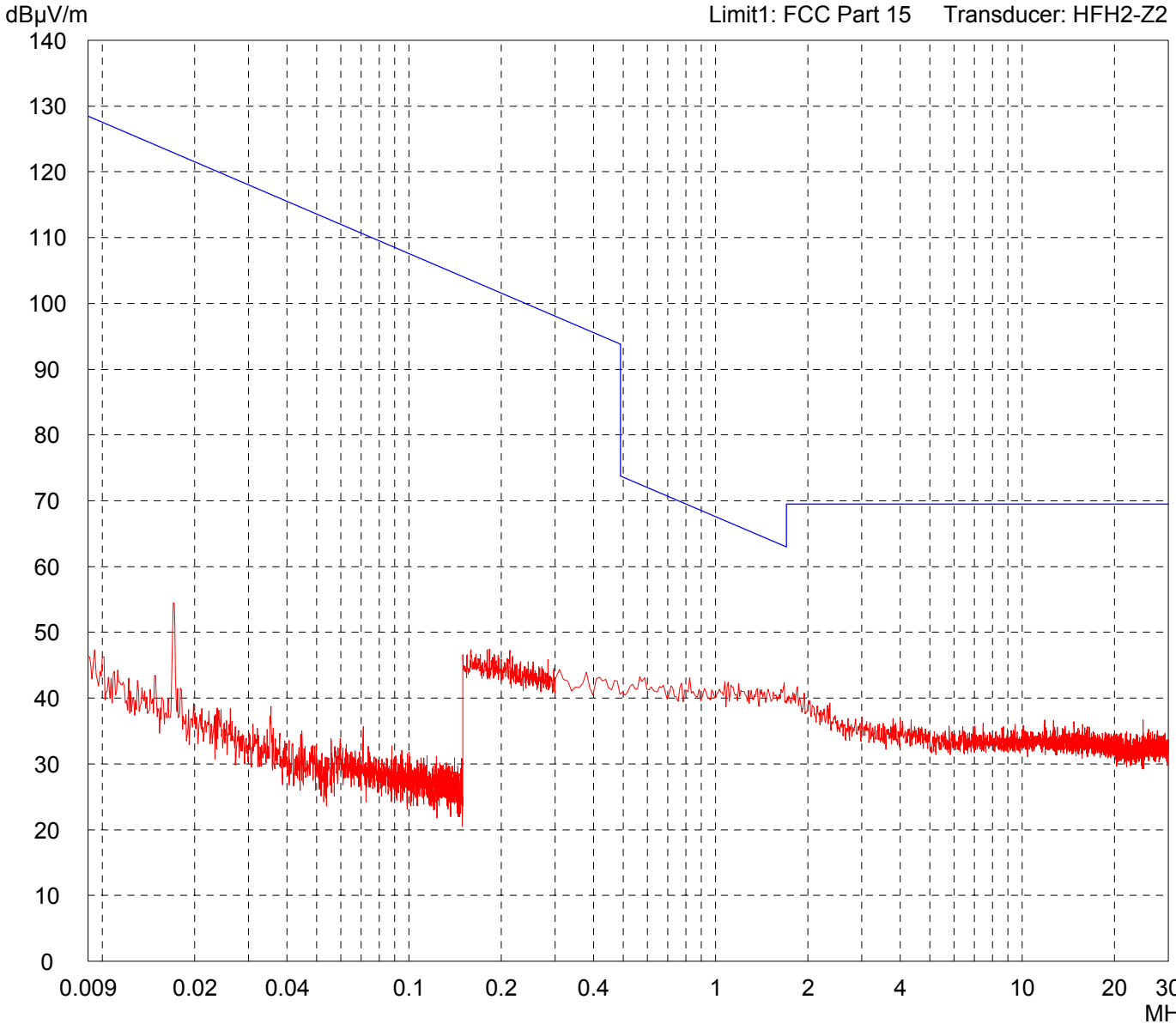


Result: Limit kept	Project file: 50941-080945

Radiated Emission Test 9 kHz - 30 MHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: by hand / File name: default.emi	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges



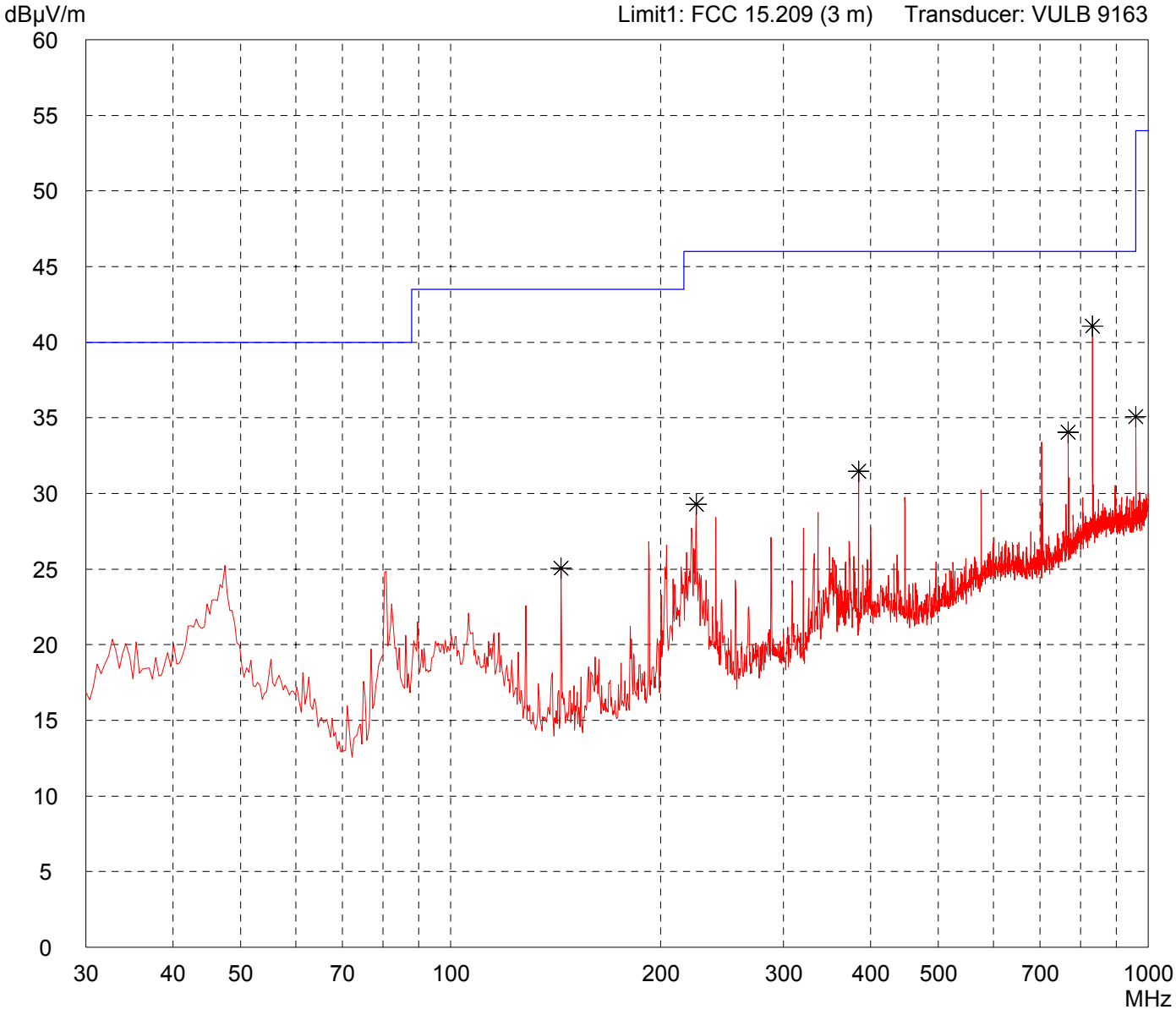
Result: Prescan	Project file: 50941-80945

Senton GmbH / Aeussere Fruehlingstrasse 45 / D-94315 Straubing / Germany / Tel. +49 (0)9421 5522-0 / Fax +49 (0)9421 5522-99

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

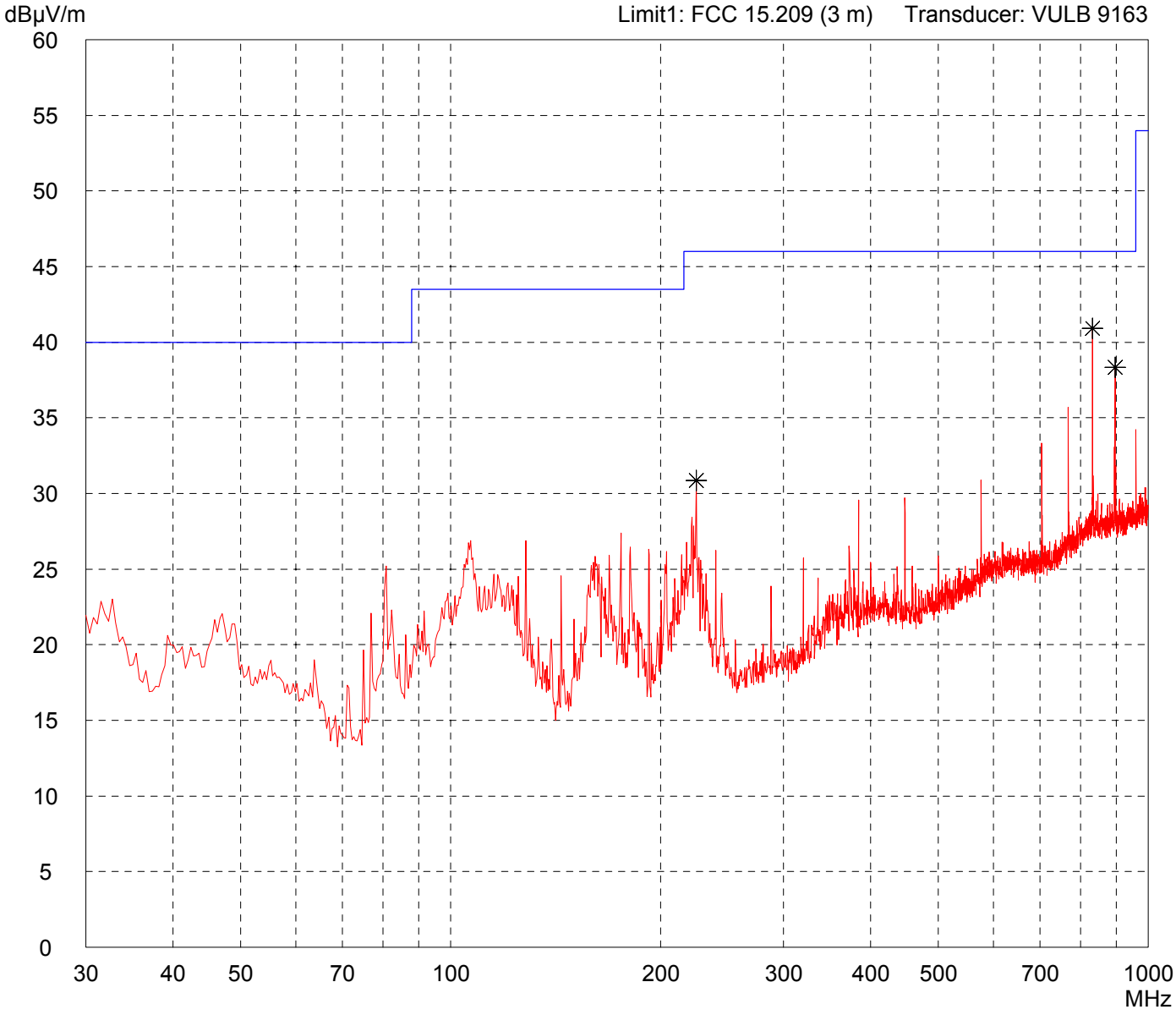


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

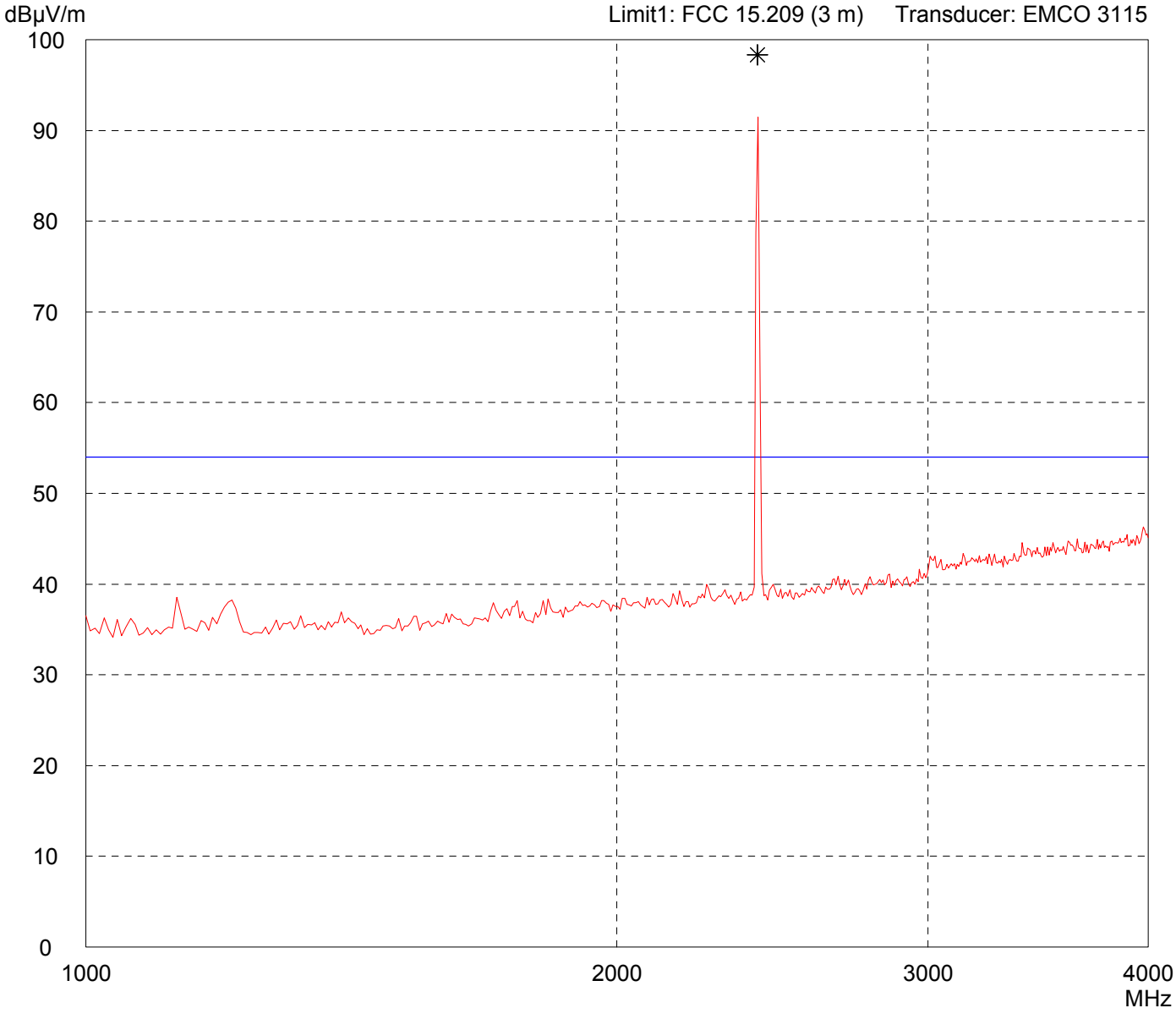


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 1 GHz - 4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

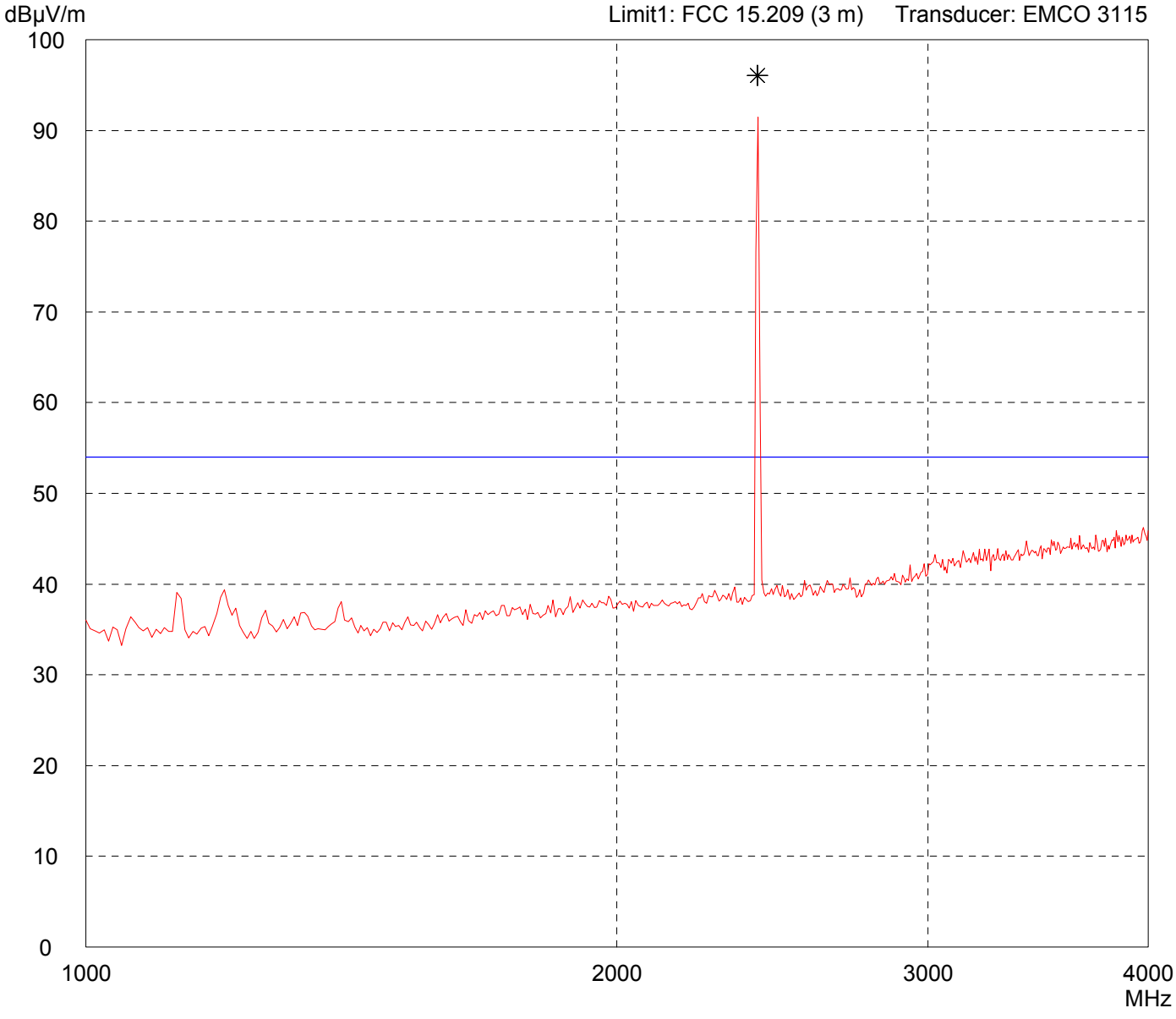


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 1 GHz - 4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

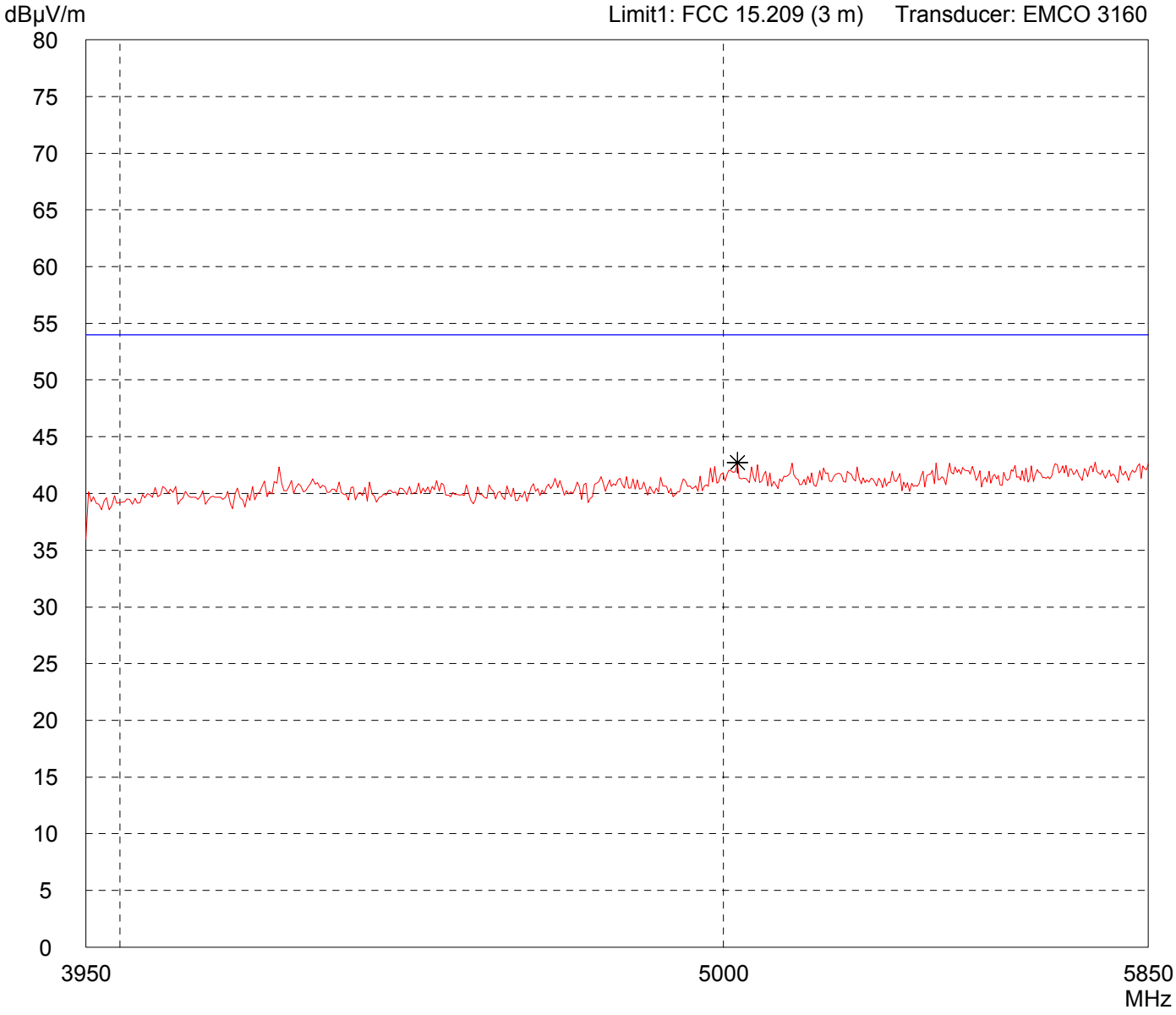
Detector: Peak	List of values: Selected by hand



Result: Prescan	Project file: 50941-80945

Radiated Emission Test 3.95 GHz - 5.85 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	
Detector: Peak	List of values: Selected by hand

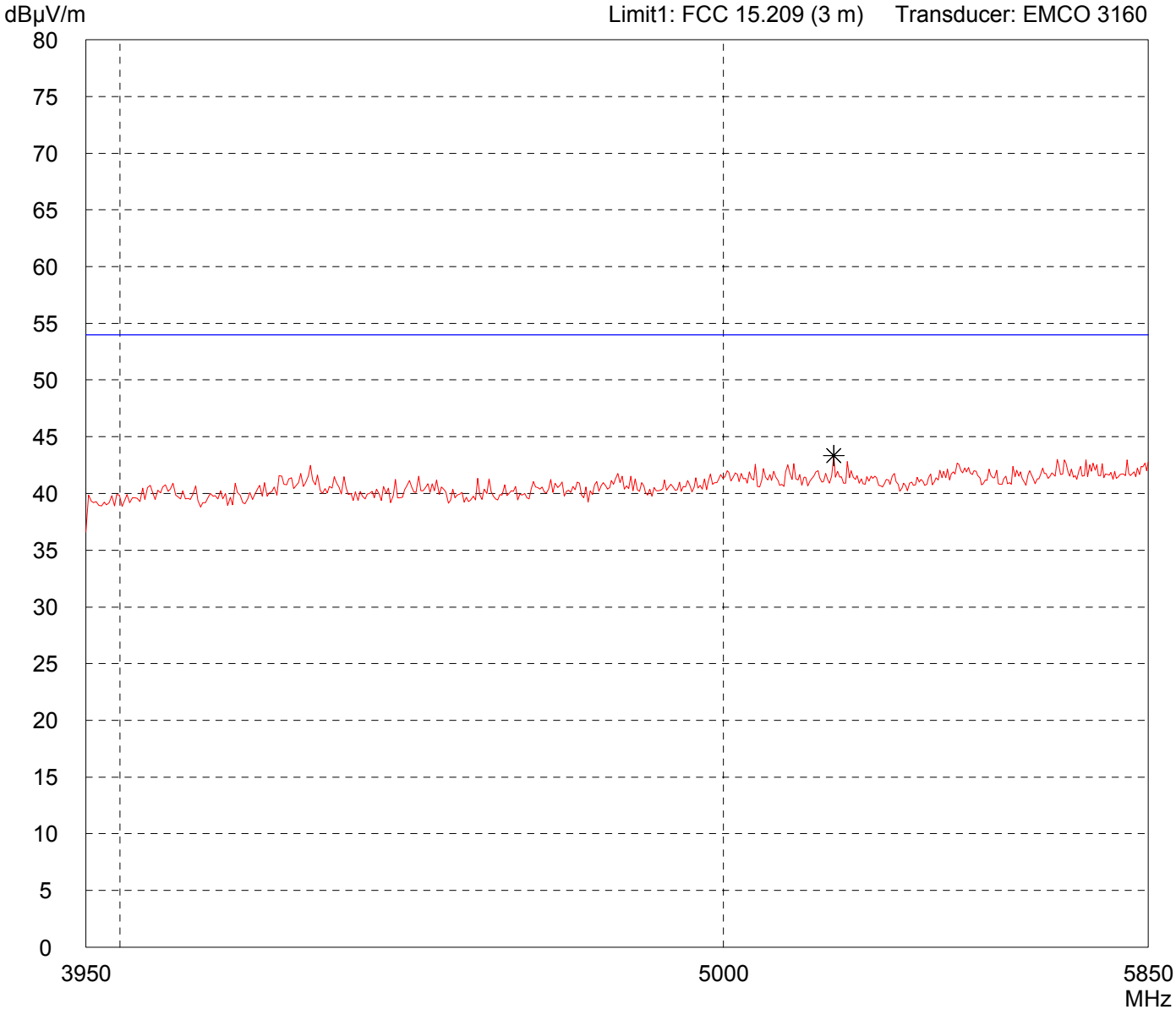


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 3.95 GHz - 5.85 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

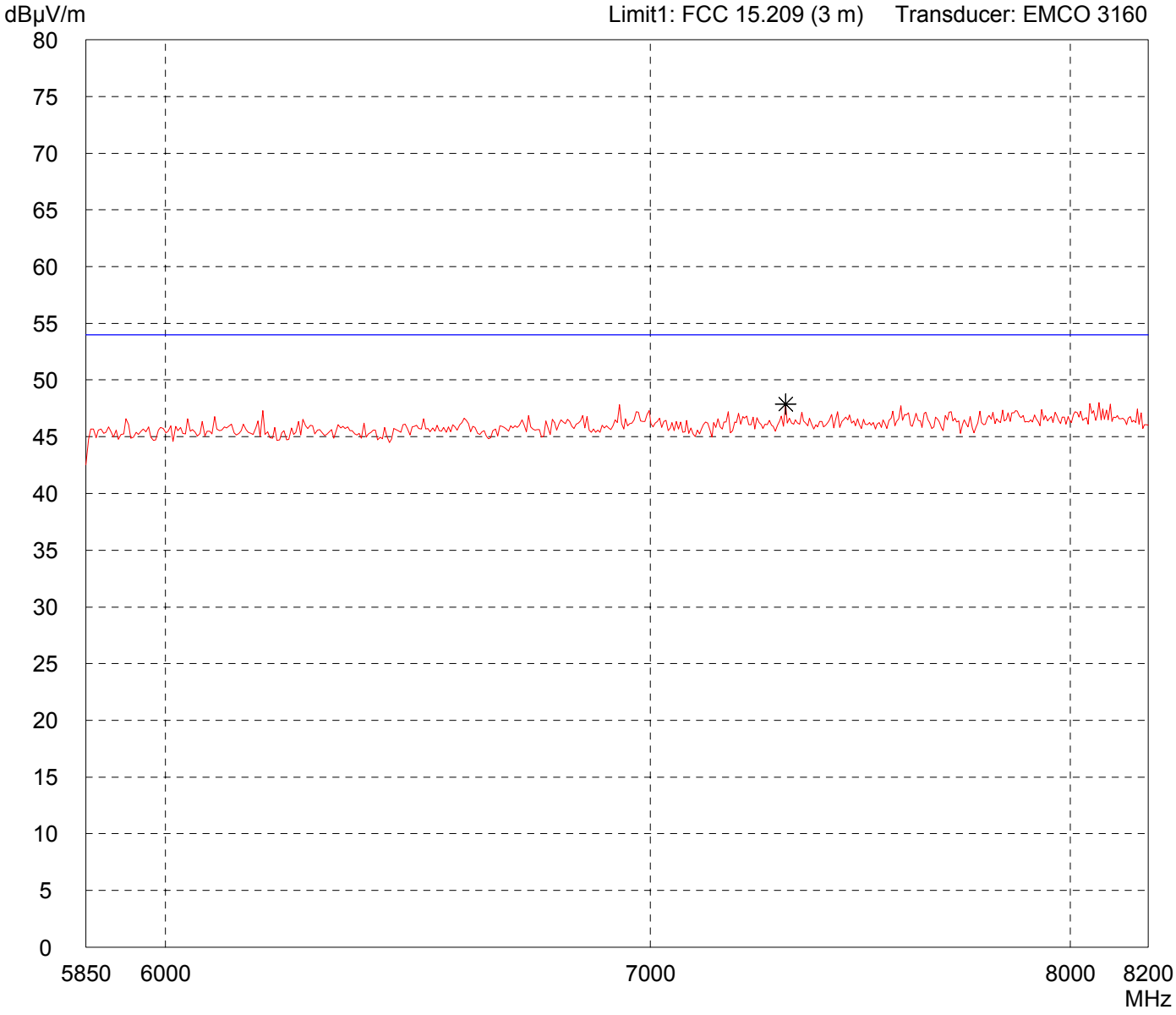


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continuously Power: 14 dBm Channel: 0
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

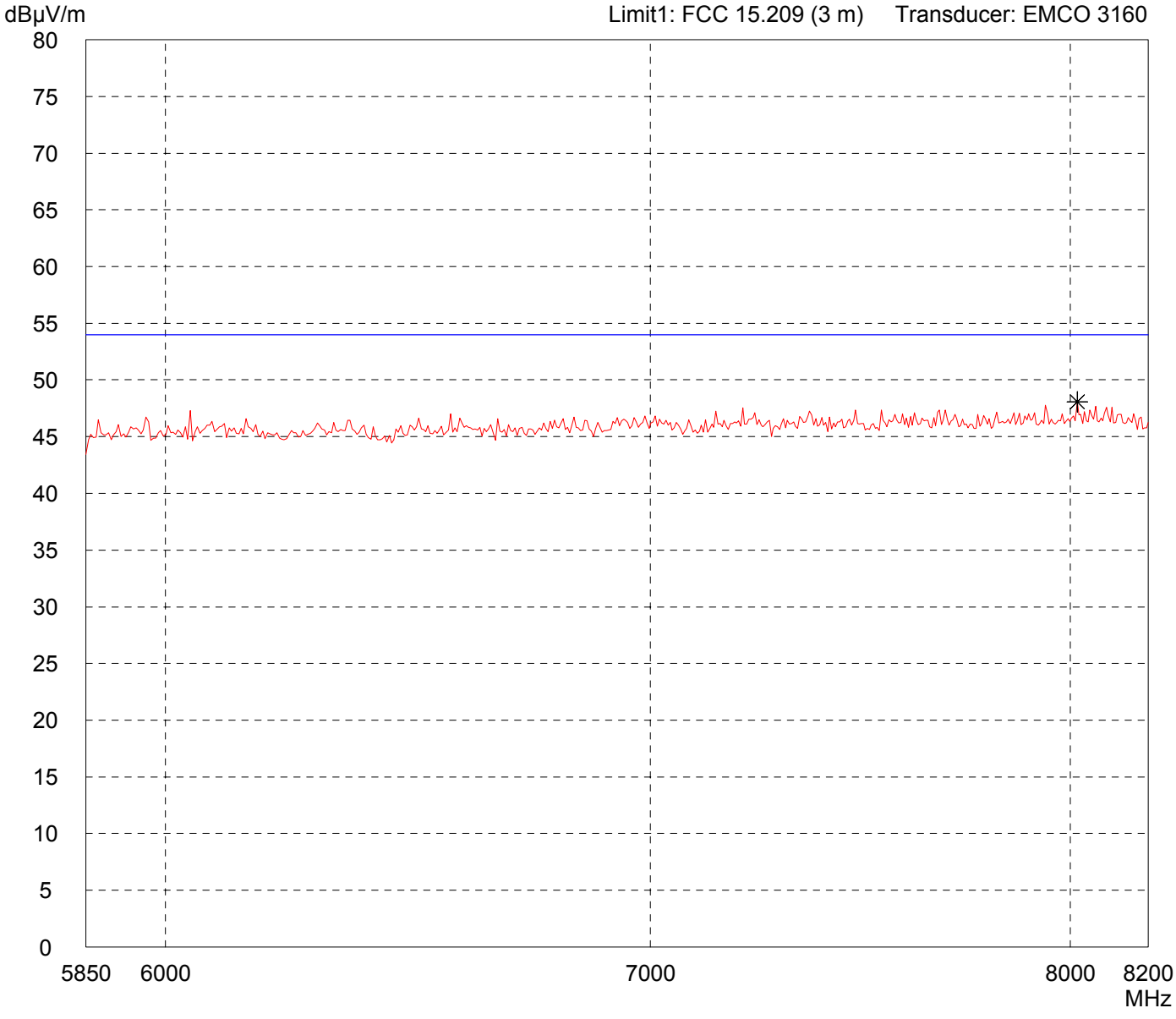


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continuously Power: 14 dBm Channel: 0
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand



Result: Prescan	Project file: 50941-80945

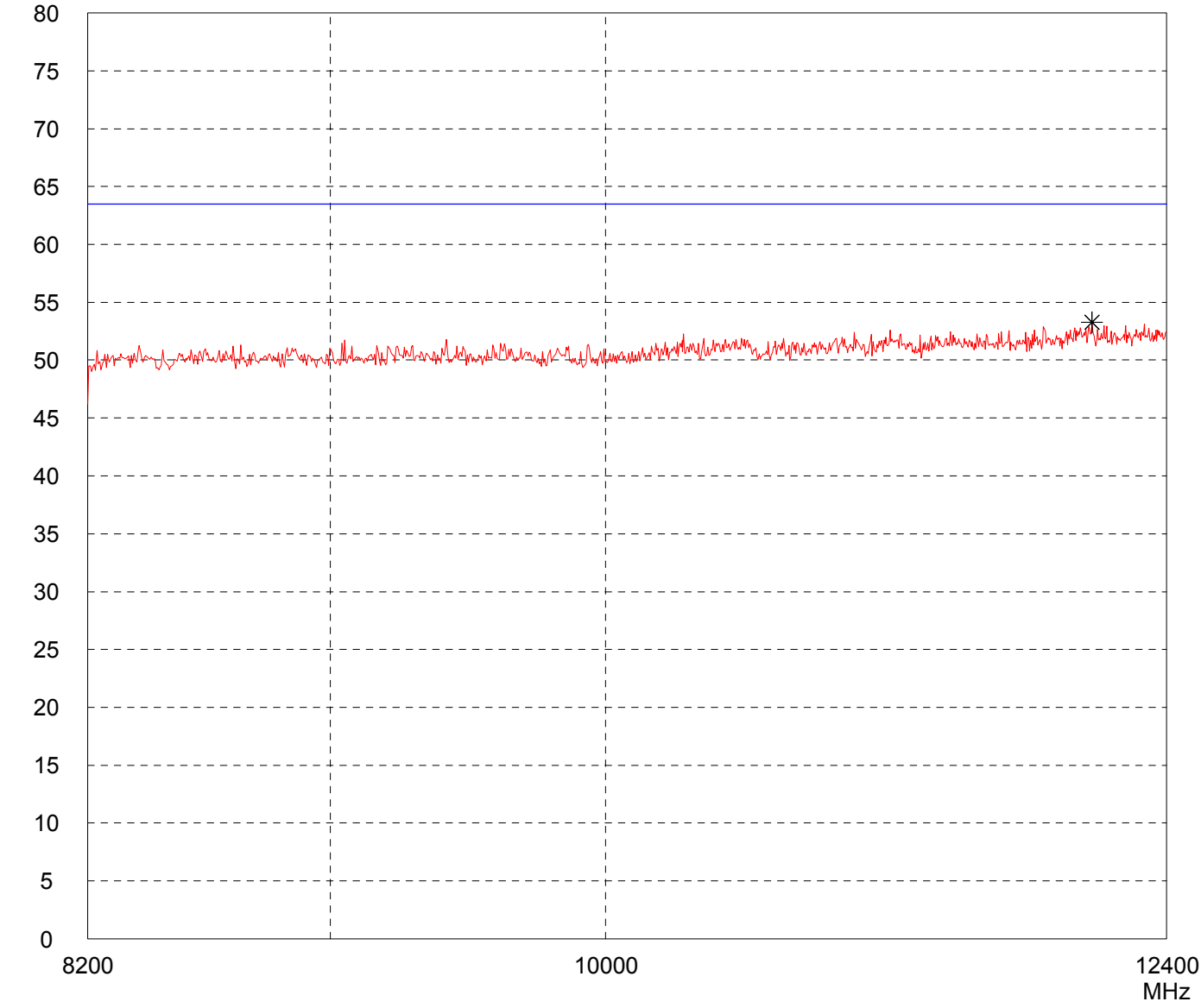
Radiated Emission Test 8.2 GHz - 12.4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m

Limit1: FCC 15.209 (1 m) Transducer: EMCO 3160

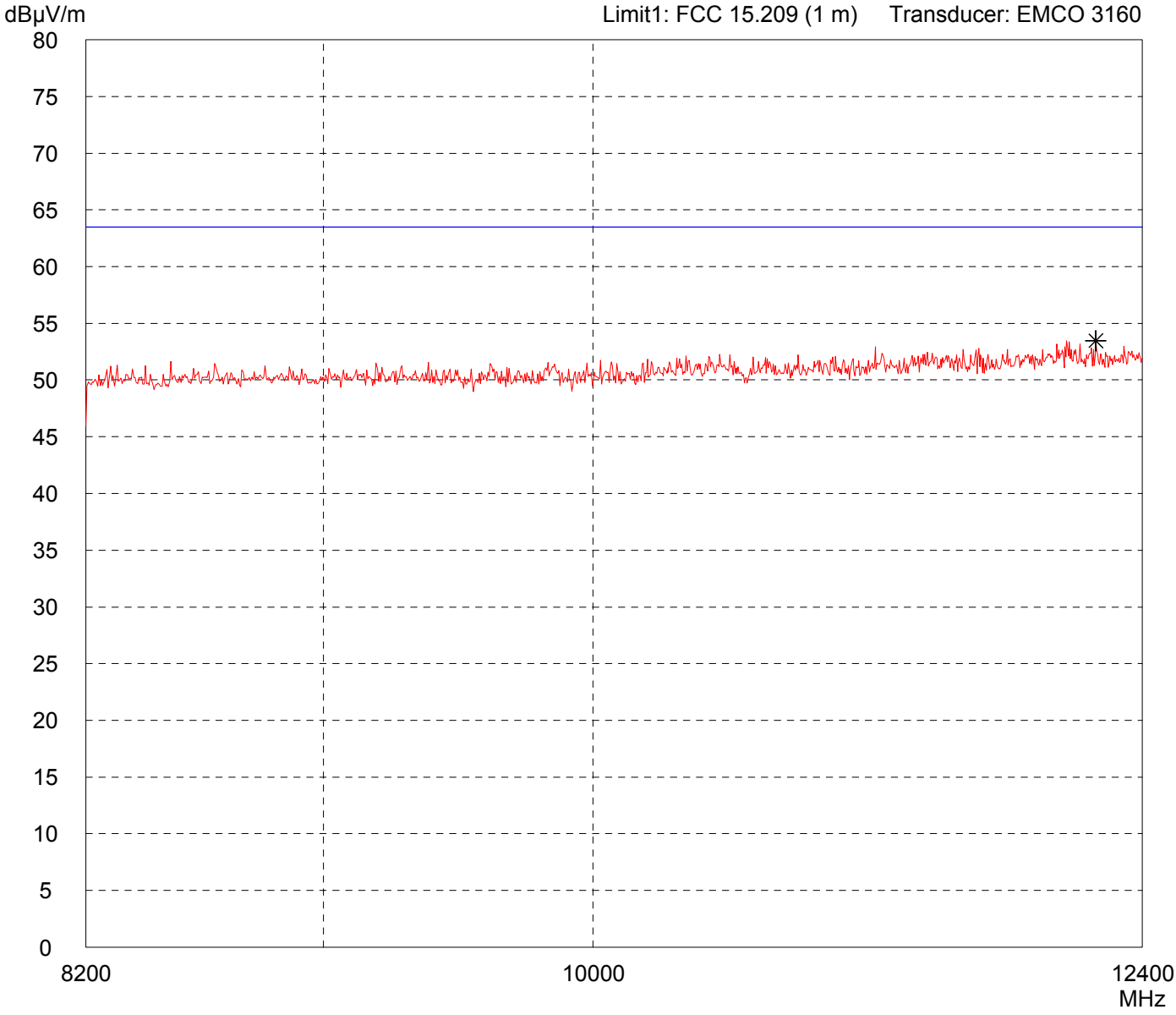


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand



Result: Prescan	Project file: 50941-80945

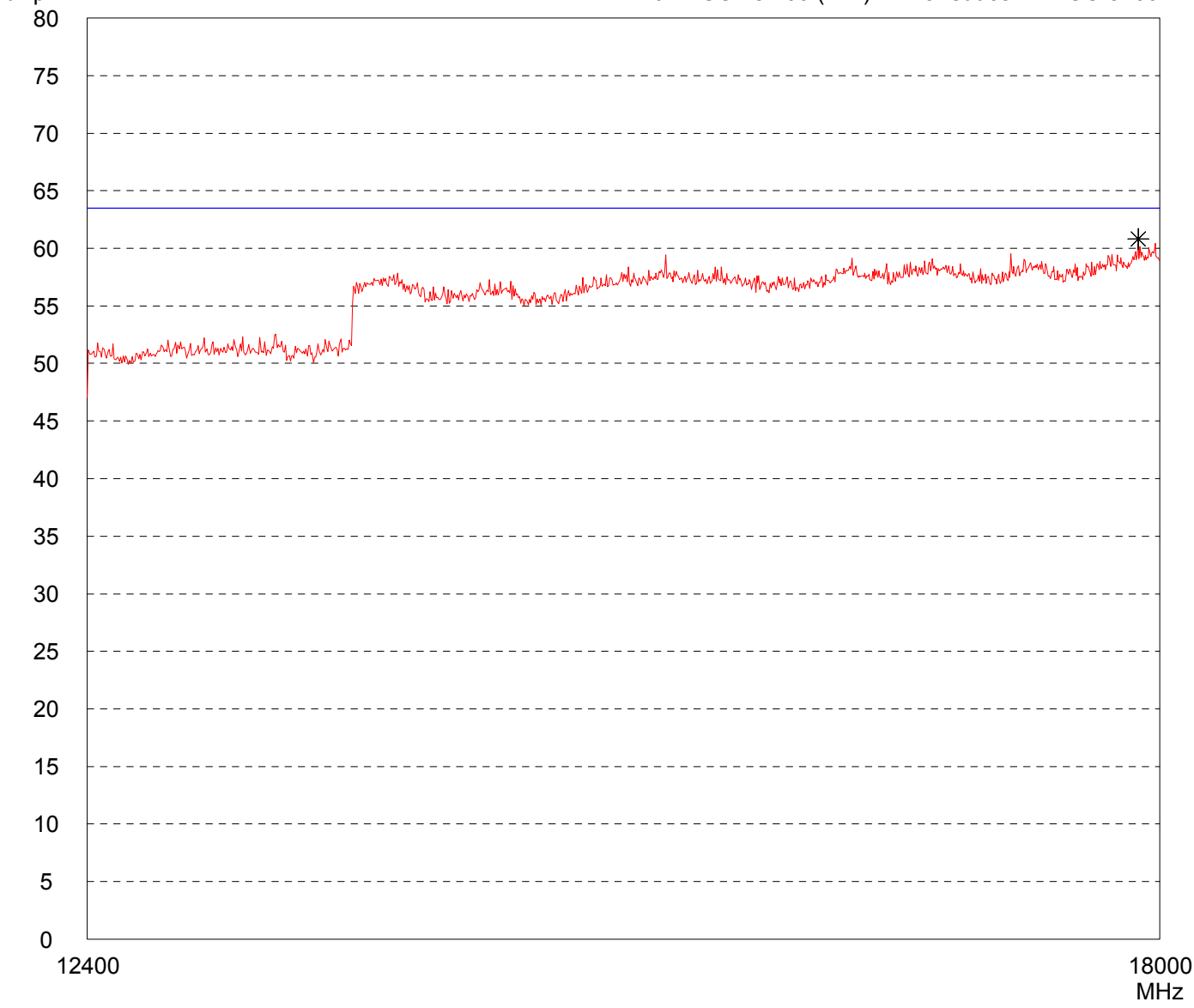
Radiated Emission Test 12.4 GHz - 18 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m

Limit1: FCC 15.209 (1 m) Transducer: EMCO 3160



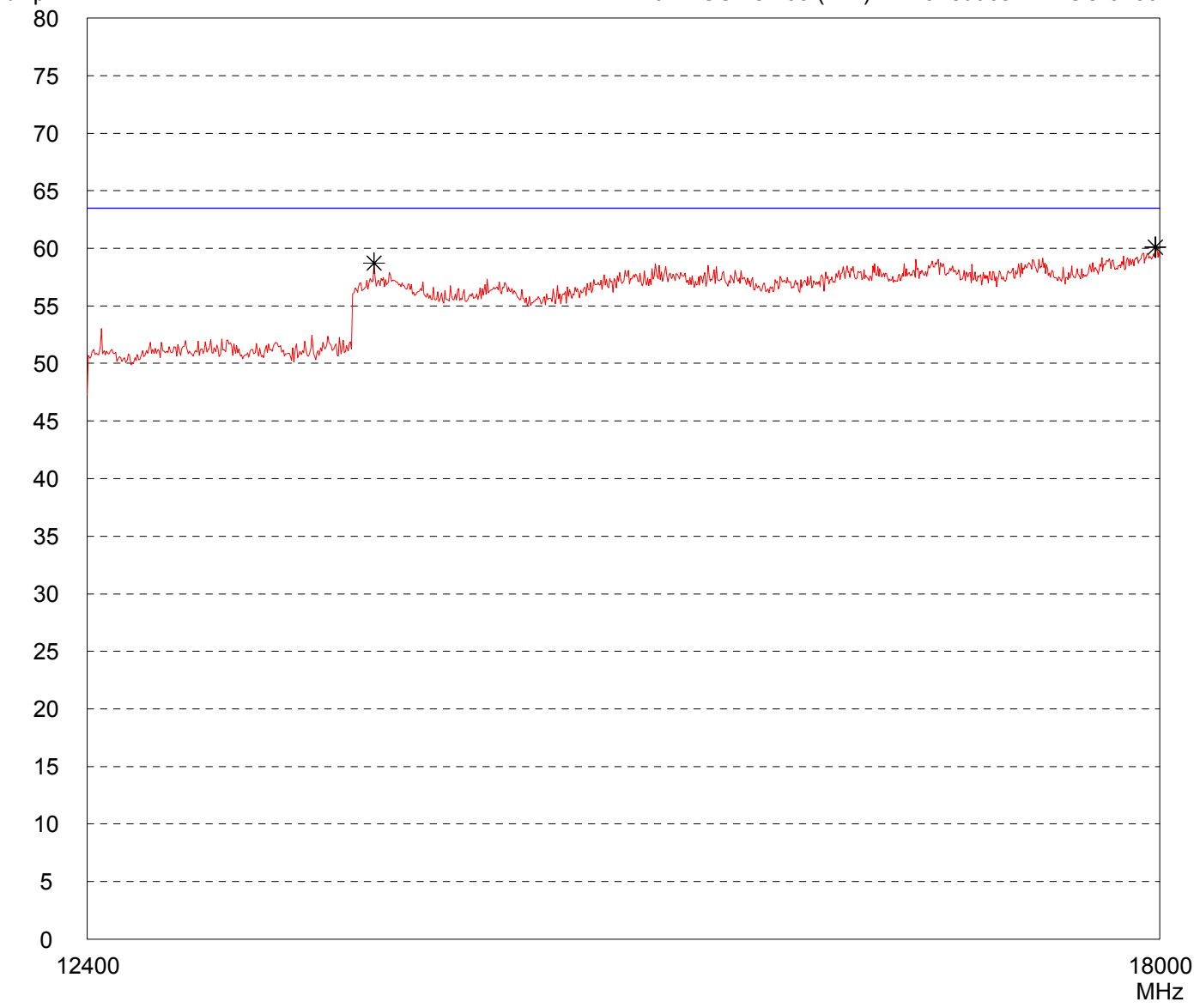
Result: Prescan (VBW = 100 kHz)	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m — Limit1: FCC 15.209 (1 m) — Transducer: EMCO 3160

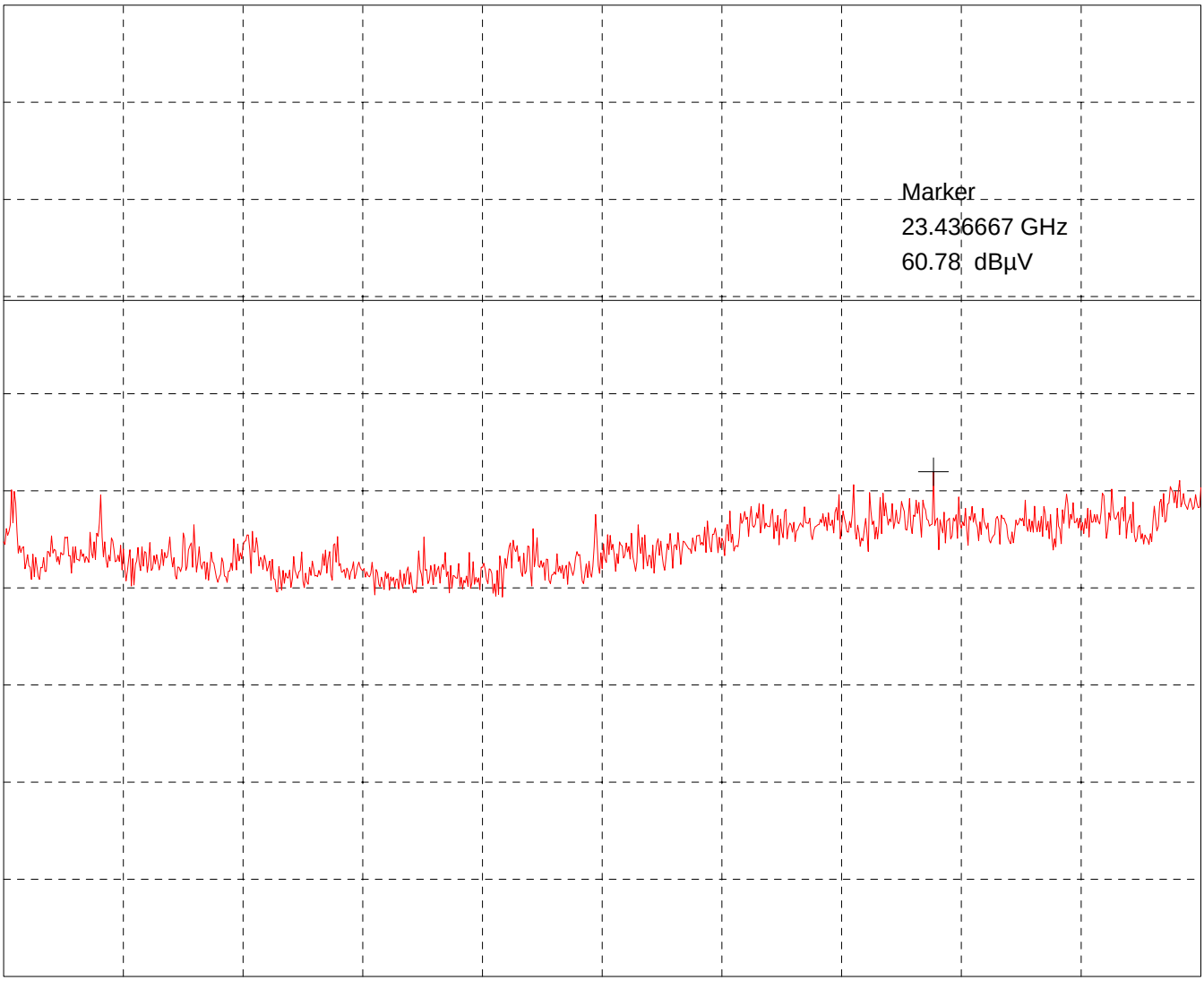


Result: Prescan (VBW = 100 kHz)	Project file: 50941-80945

Radiated Emission Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0 - Distance: 0.5 m - Polarisation: horizontal
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 84.8 dBµV ATT 0 dB Ref. Offset 42.8 dB
5 dB/Div.



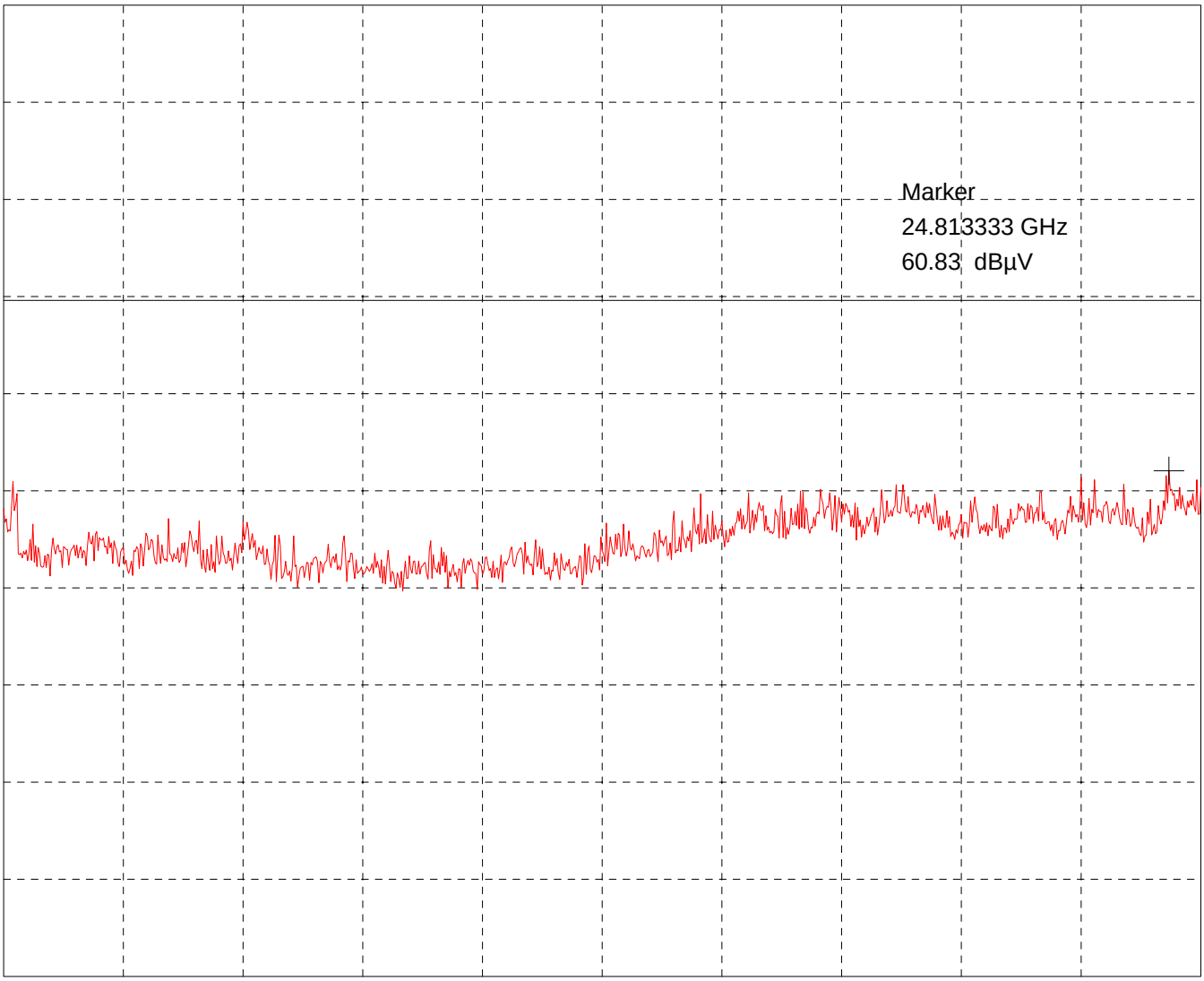
Start 18.000 GHz Stop 25.000 GHz
RBW 1 MHz VBW 1 MHz SWP 40 ms

Tested by: M. Steindl	Project-No.: 50941-080945
Date: 2008/09/26	

Radiated Emission Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0 - Distance: 0.5 m - Polarisation: vertical
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 84.8 dBµV ATT 0 dB Ref. Offset 42.8 dB
5 dB/Div.



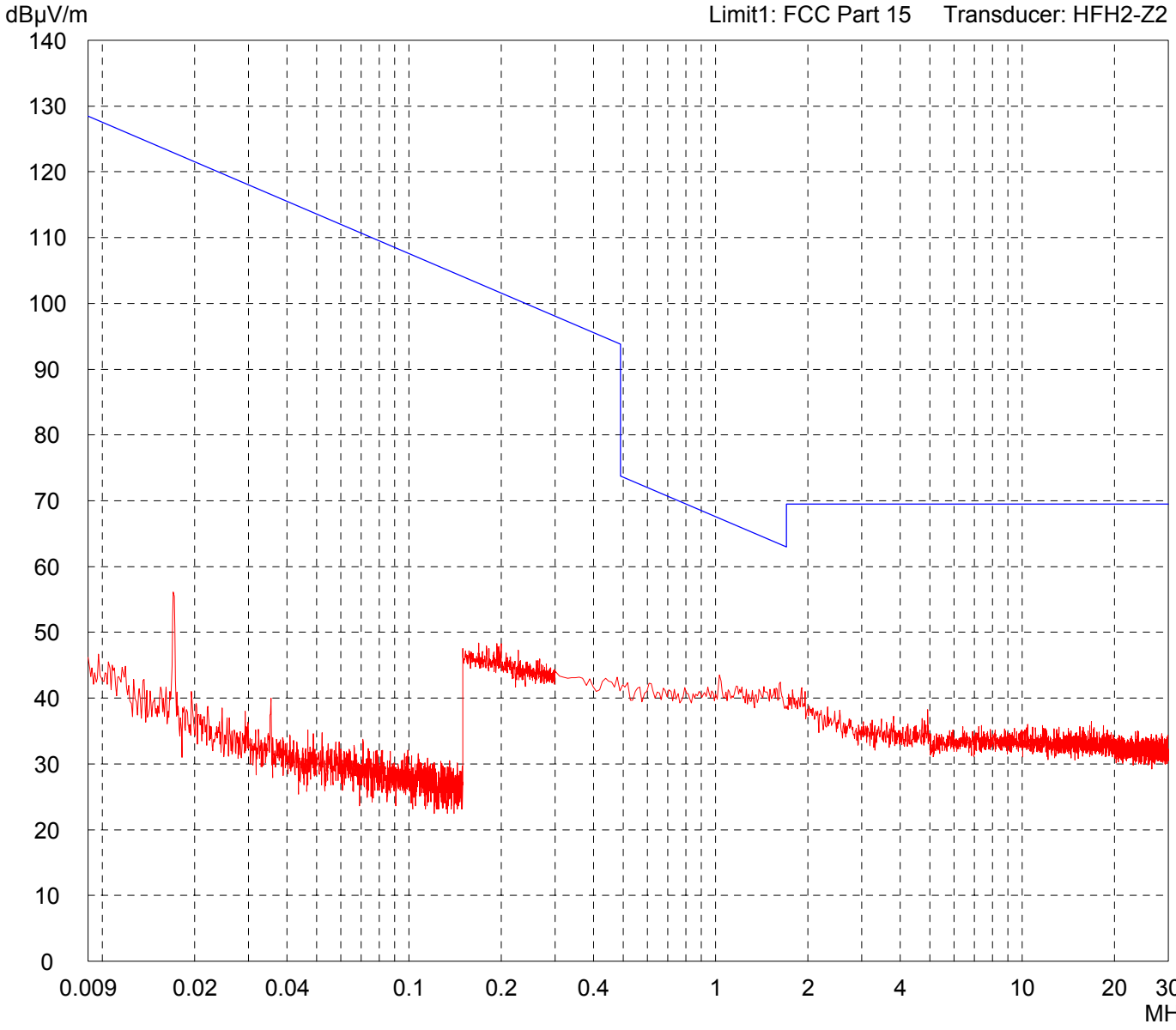
Start 18.000 GHz Stop 25.000 GHz
RBW 1 MHz VBW 1 MHz SWP 40 ms

Tested by: M. Steindl	Project-No.: 50941-080945
Date: 2008/09/26	

Radiated Emission Test 9 kHz - 30 MHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: by hand / File name: default.emi	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges

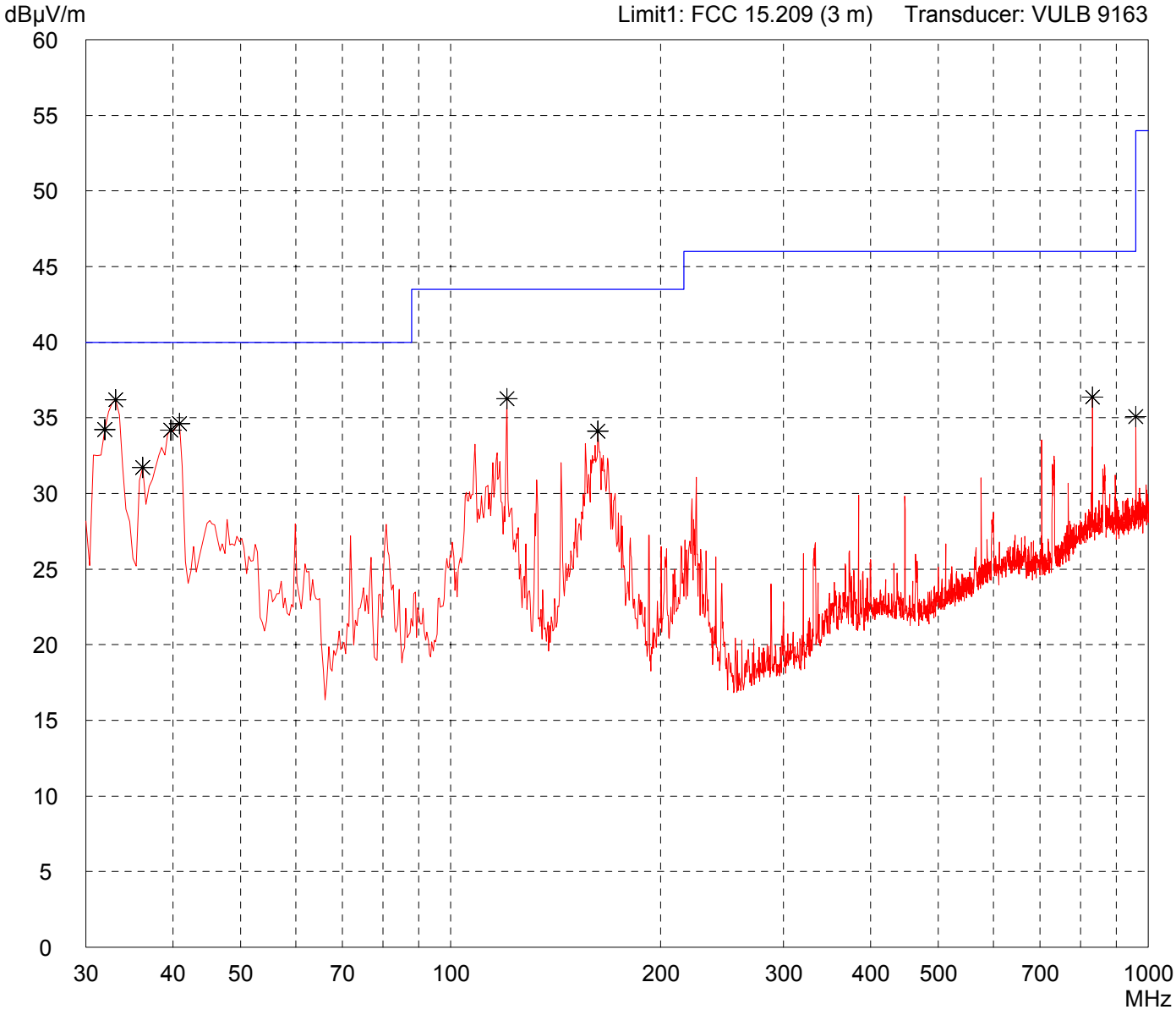


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

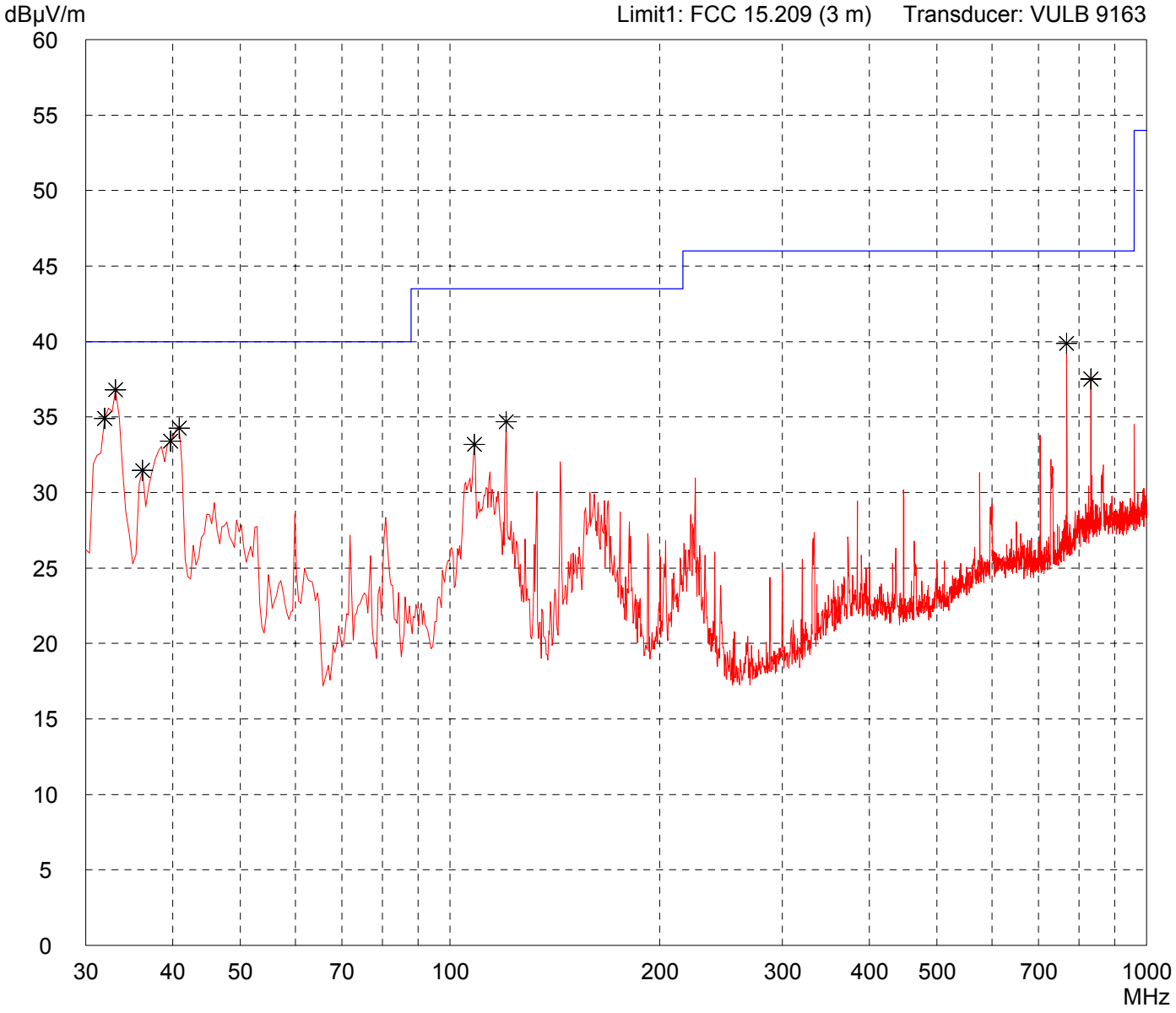


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

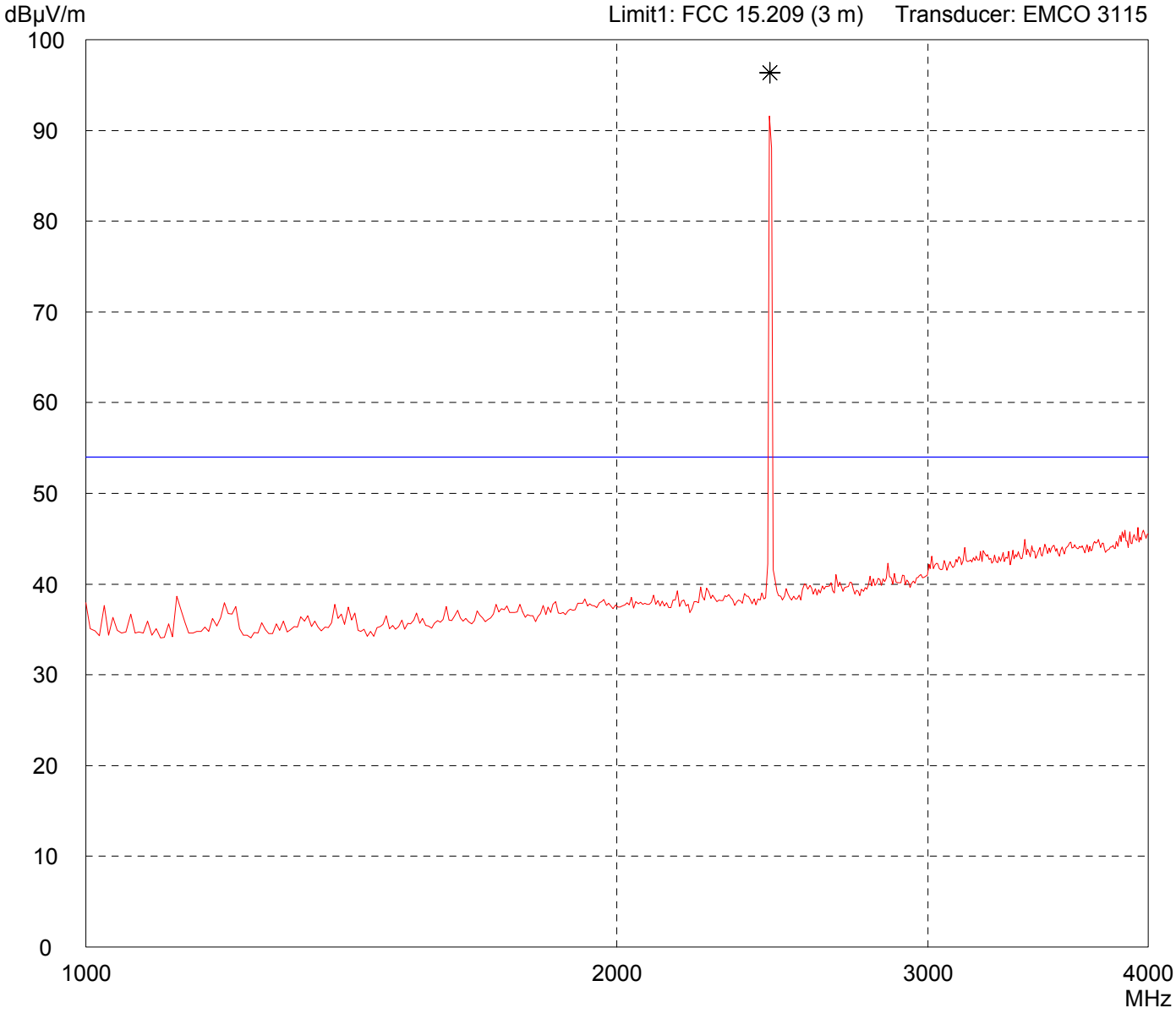


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 1 GHz - 4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continously Power: 14 dBm Channel: 13
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

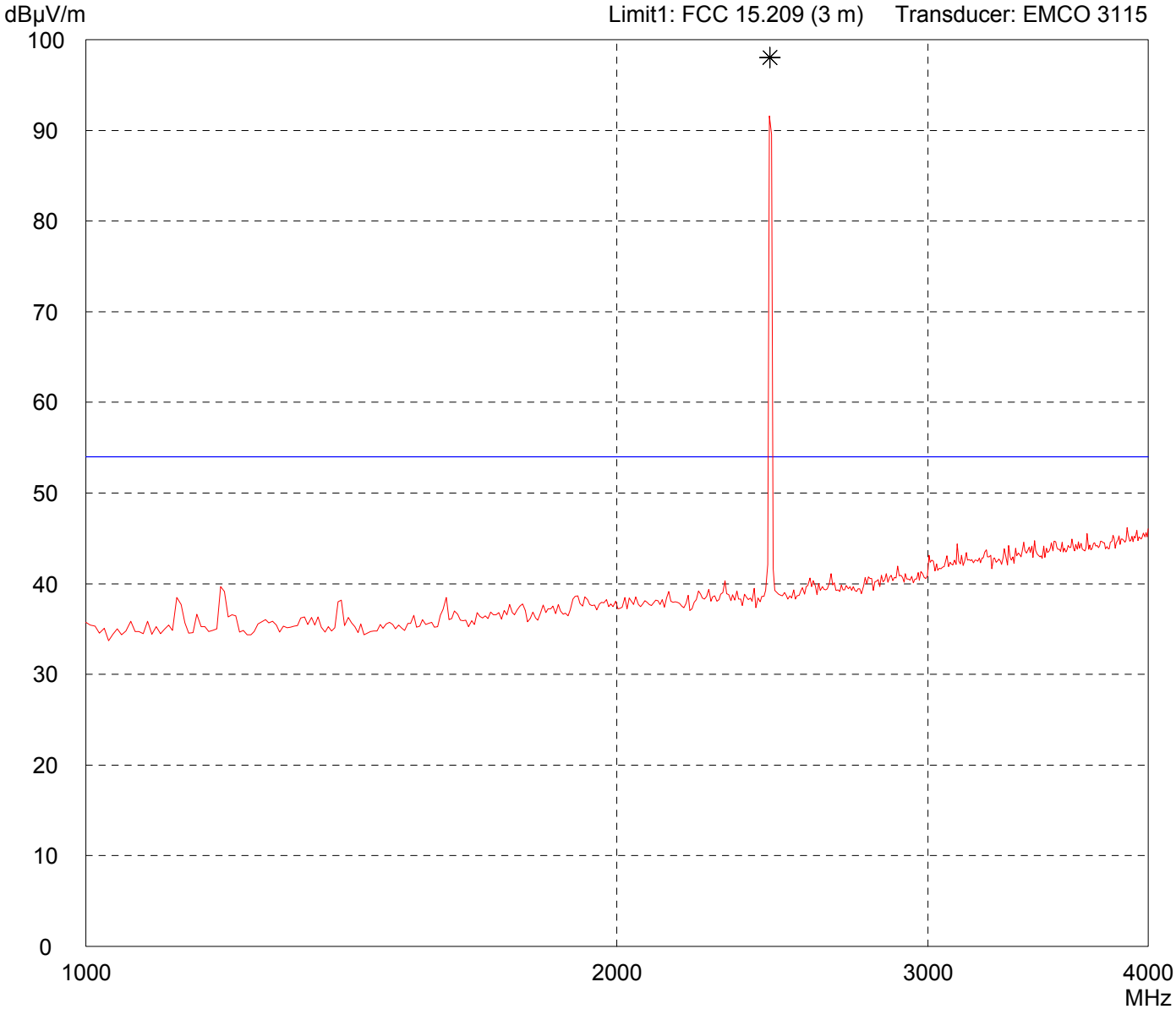


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 1 GHz - 4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continously Power: 14 dBm Channel: 13
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

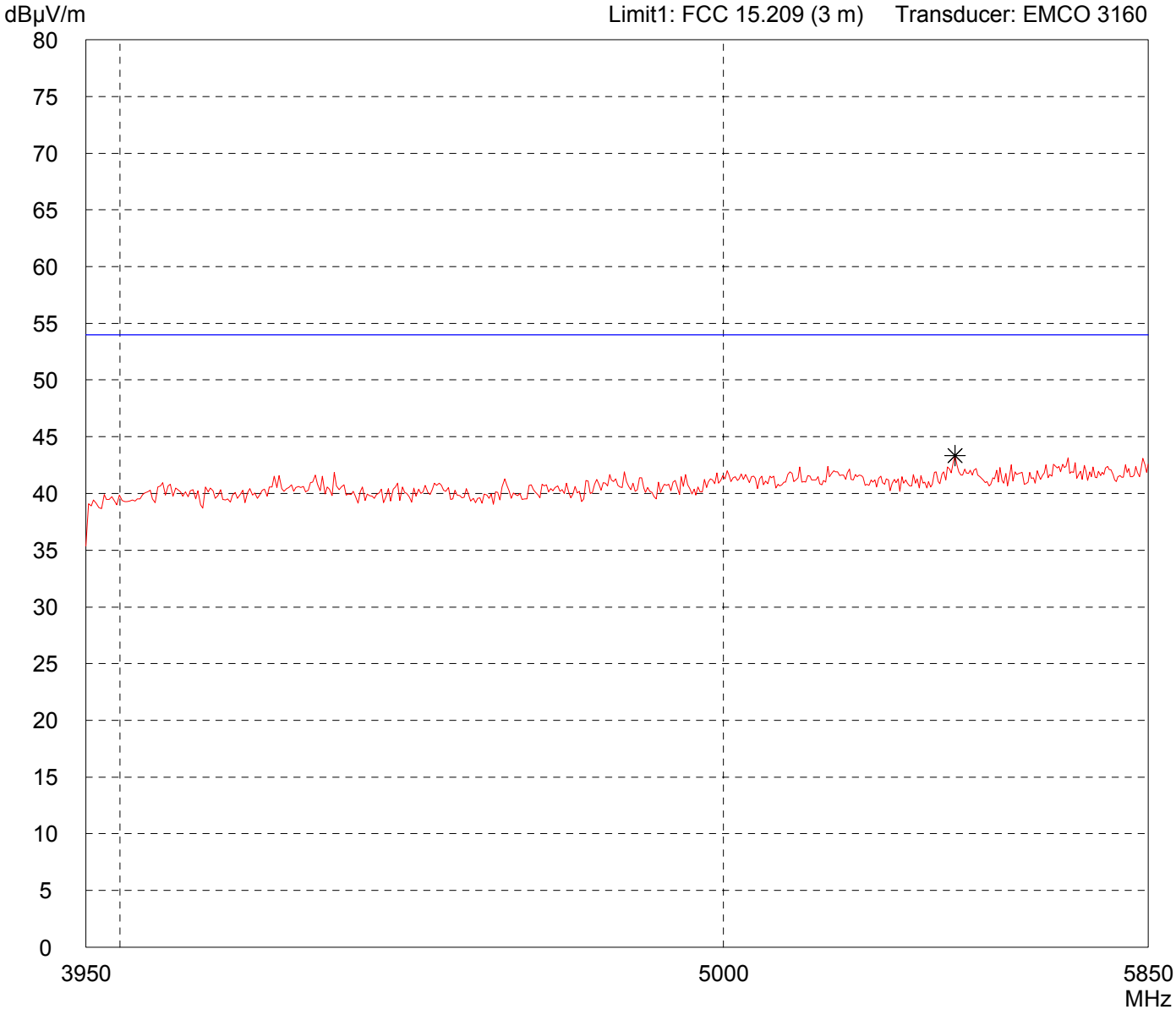


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 3.95 GHz - 5.85 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continously Power: 14 dBm Channel: 13
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

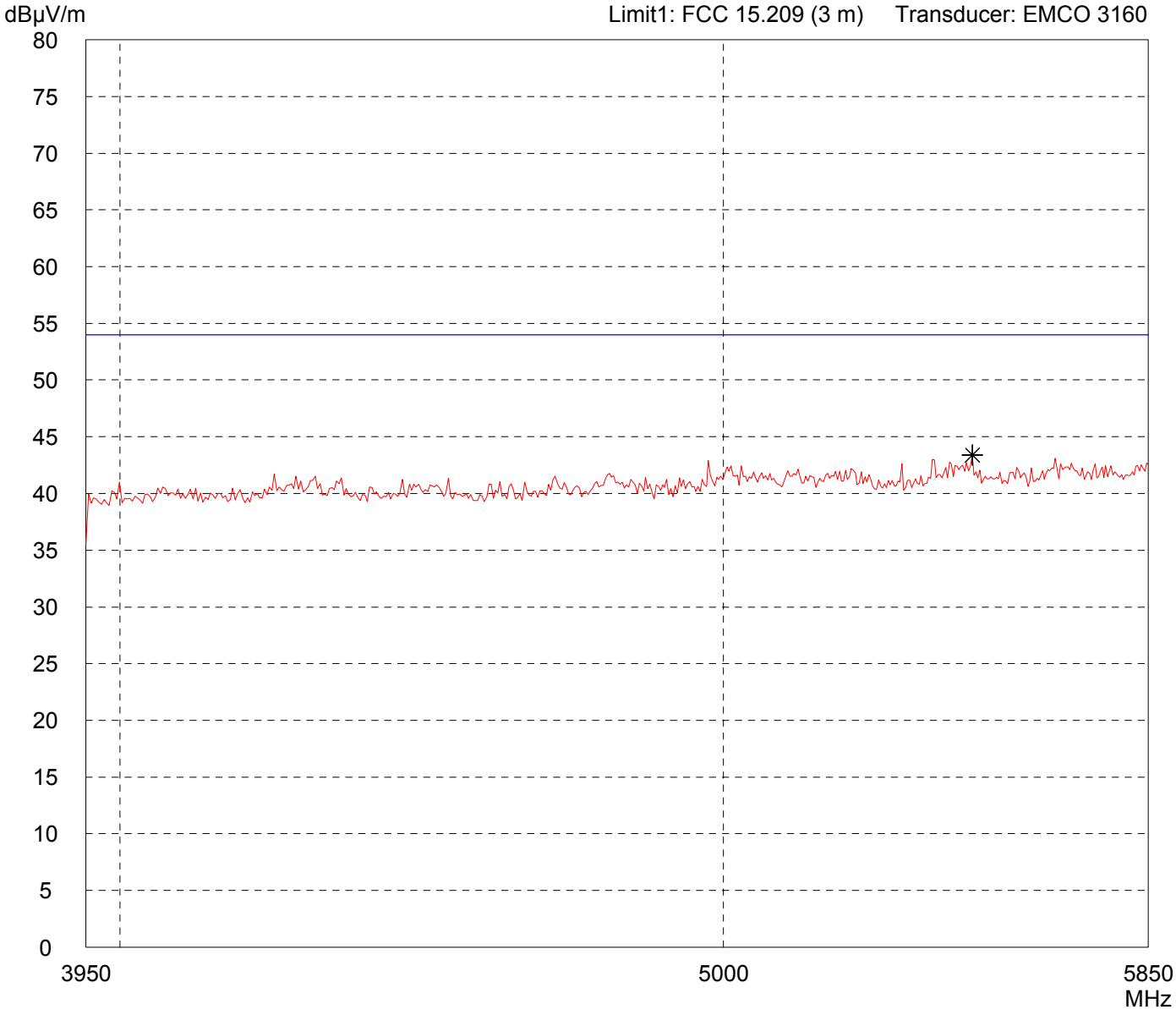


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 3.95 GHz - 5.85 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

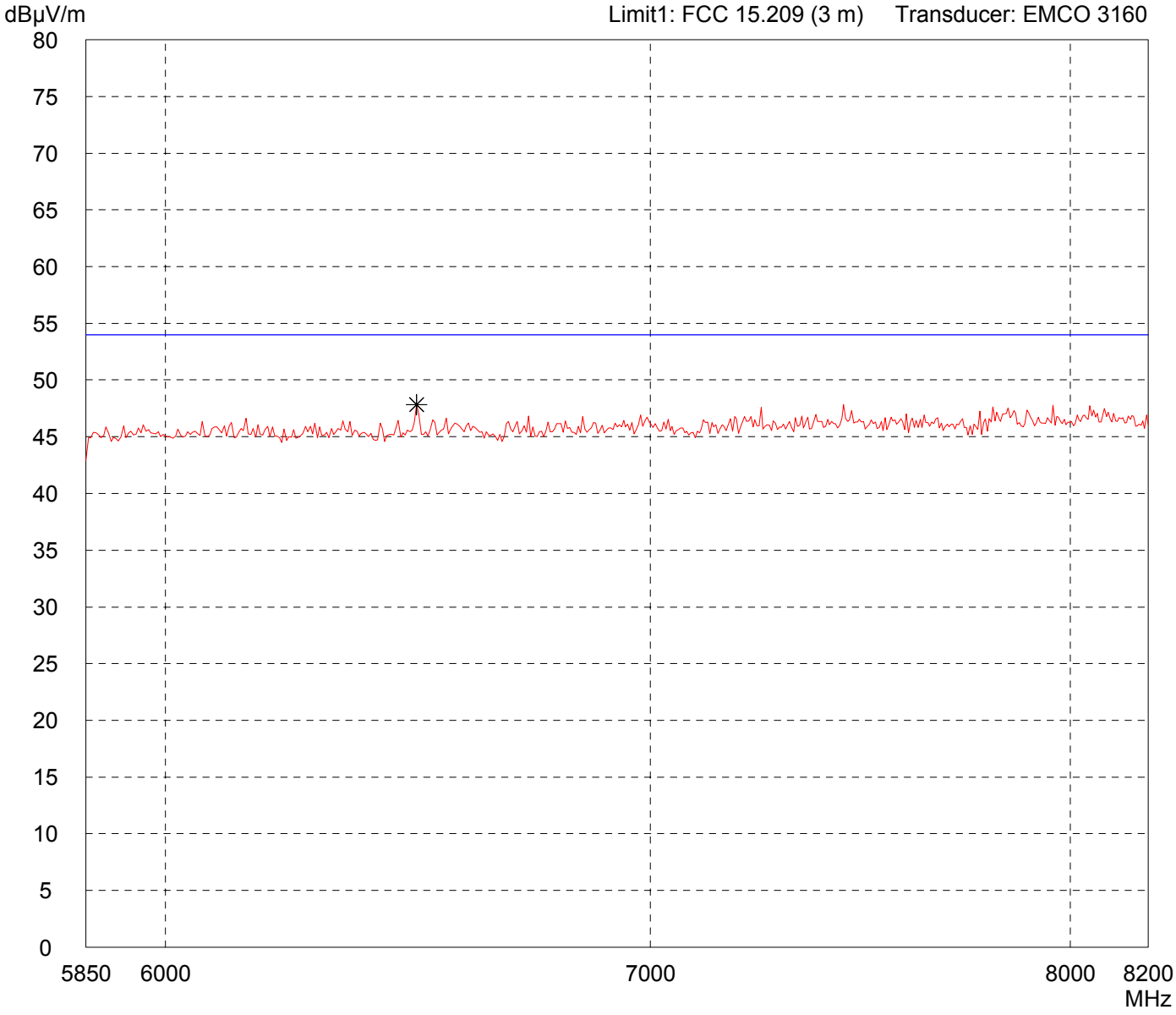


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continuously Power: 14 dBm Channel: 13
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

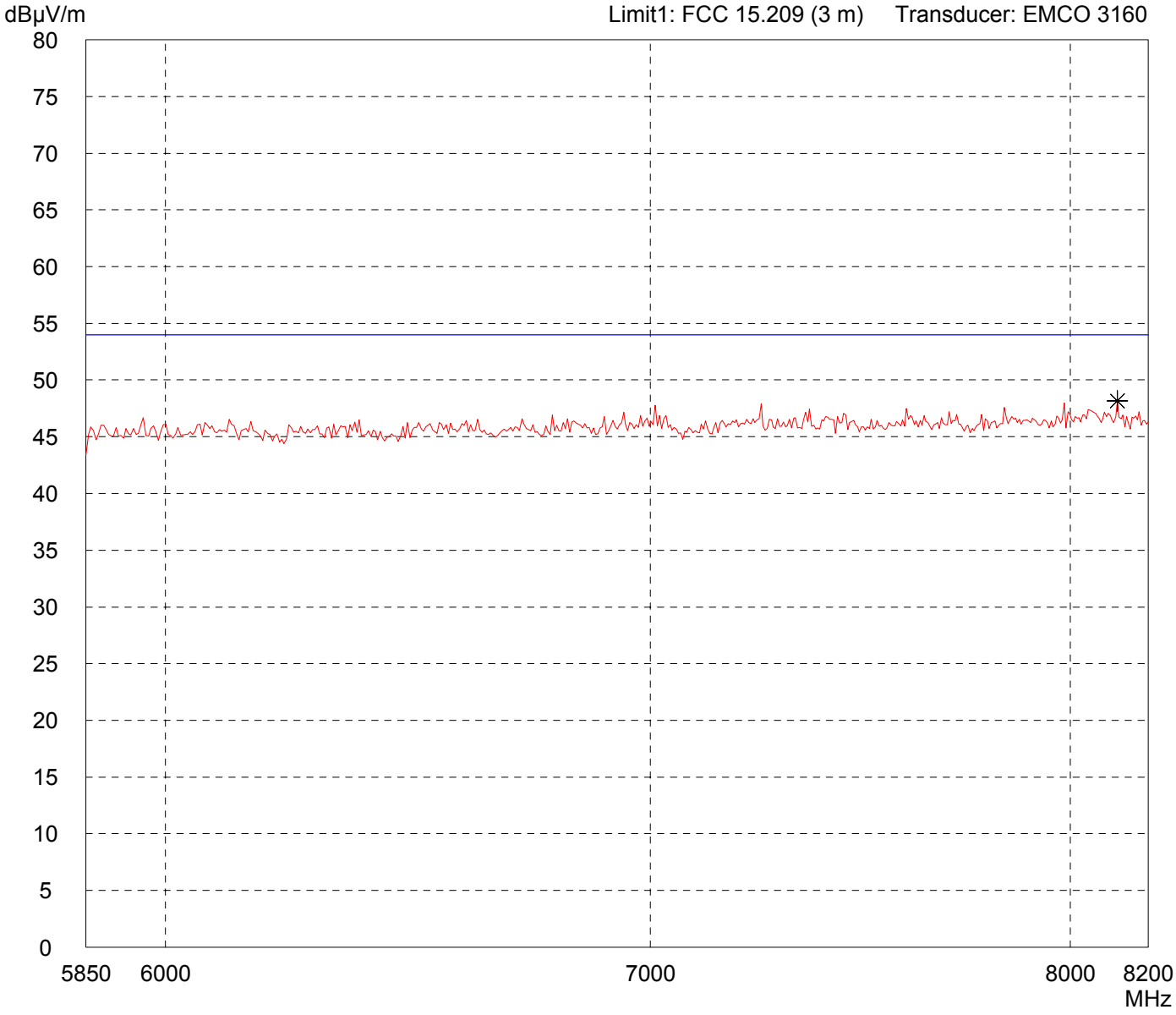


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continuously Power: 14 dBm Channel: 13
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

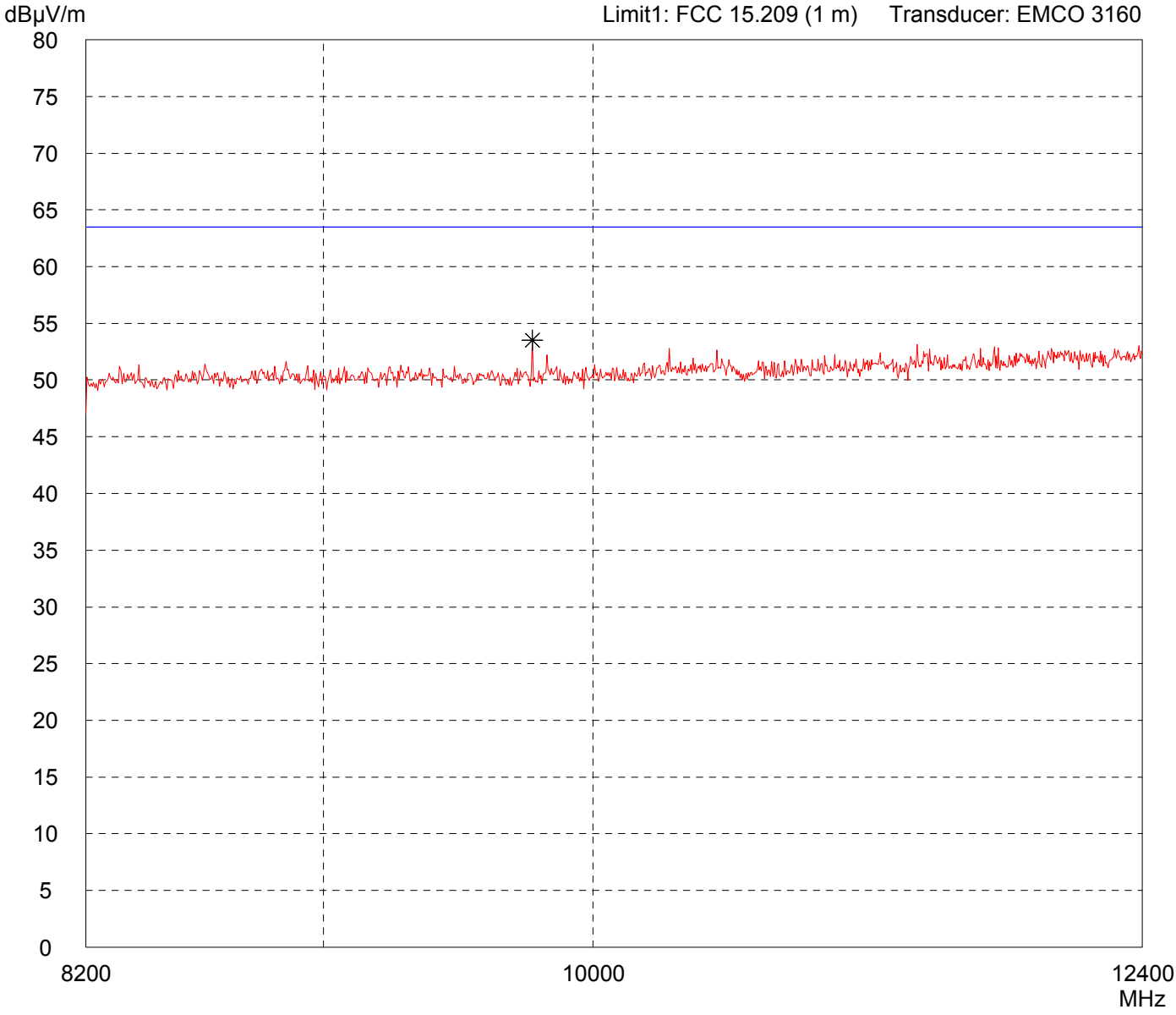


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges

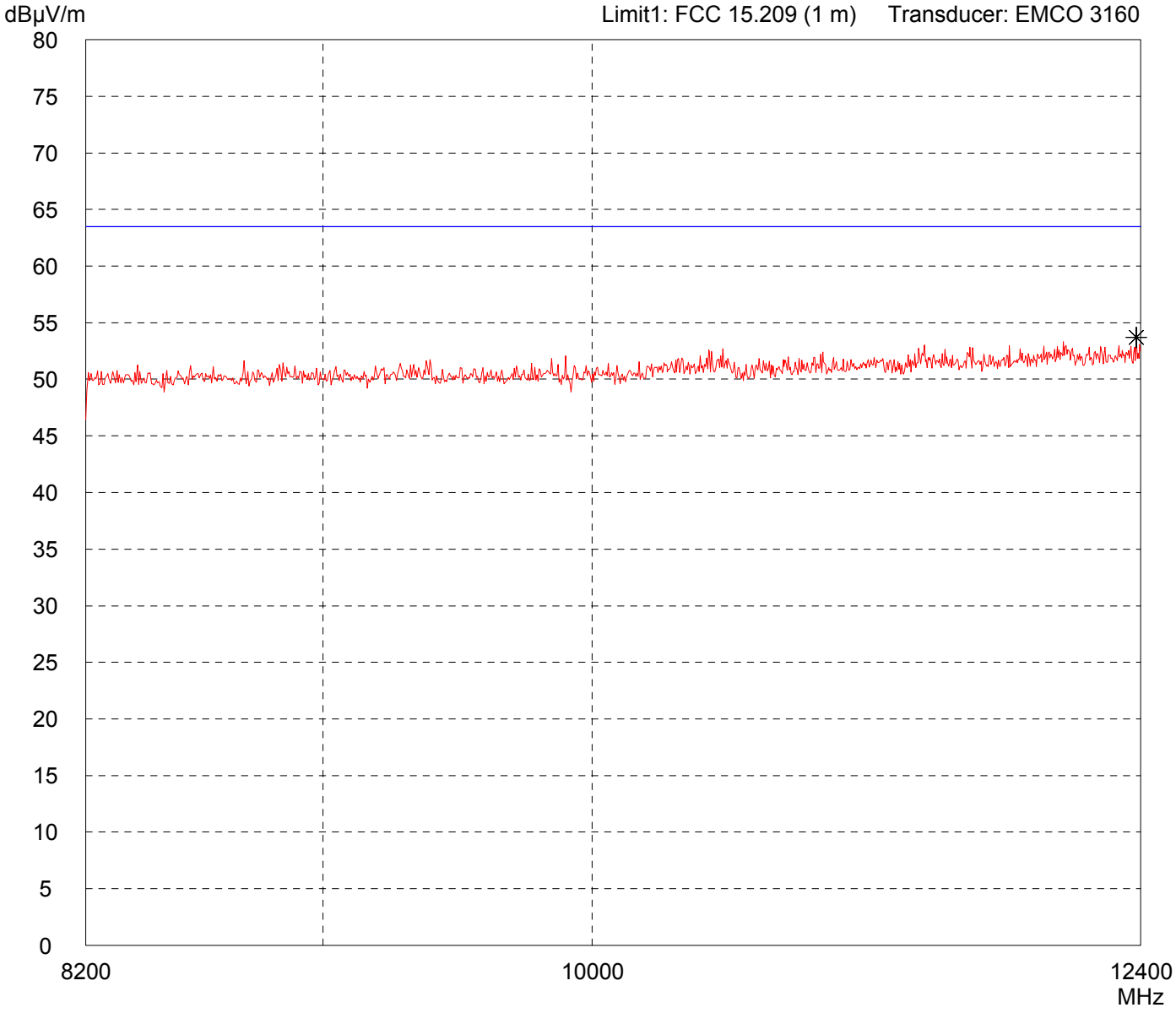


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges



Result: Prescan	Project file: 50941-80945

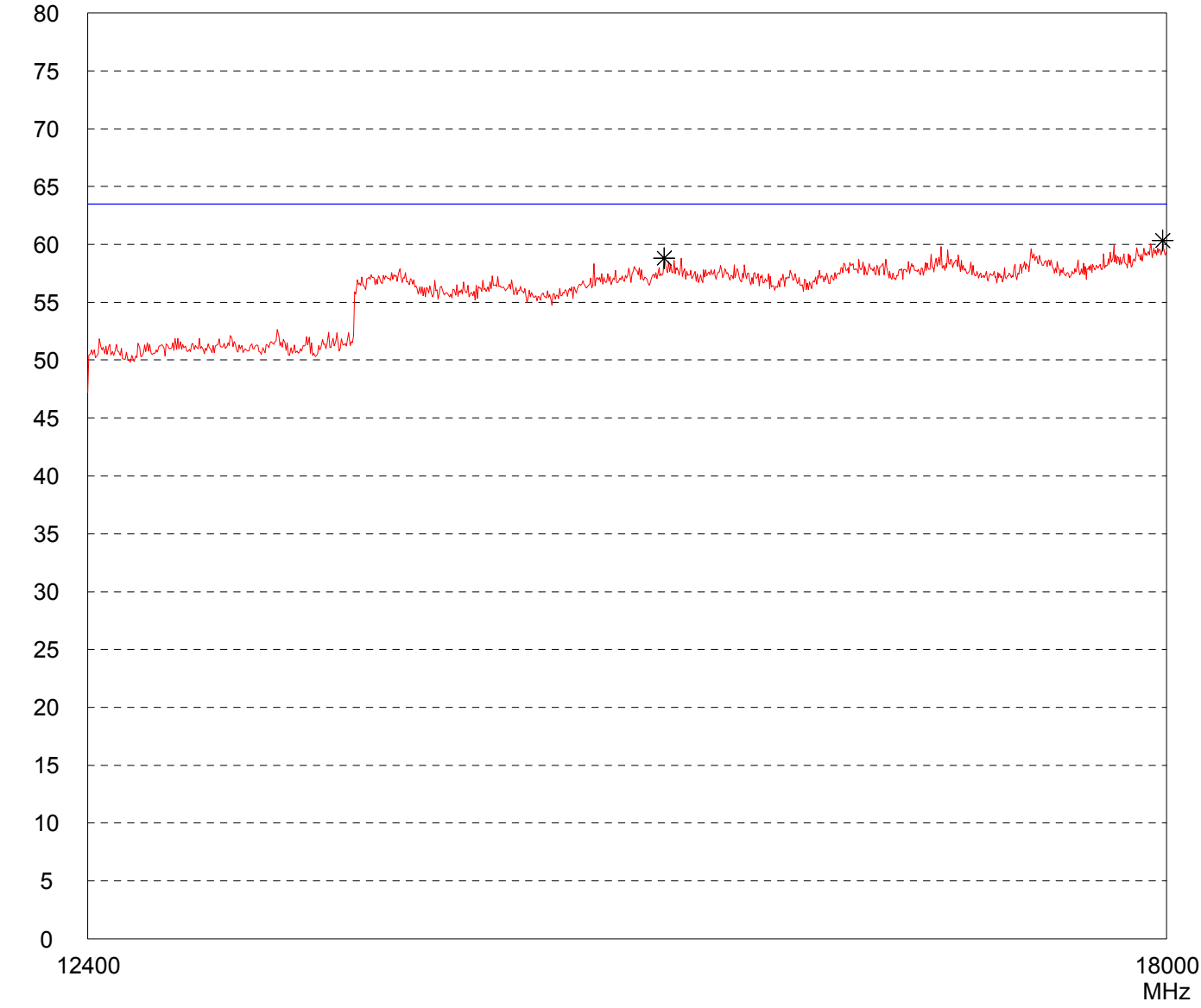
Radiated Emission Test 12.4 GHz - 18 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m

Limit1: FCC 15.209 (1 m) Transducer: EMCO 3160



Result: Prescan (VBW = 100 kHz)	Project file: 50941-80945

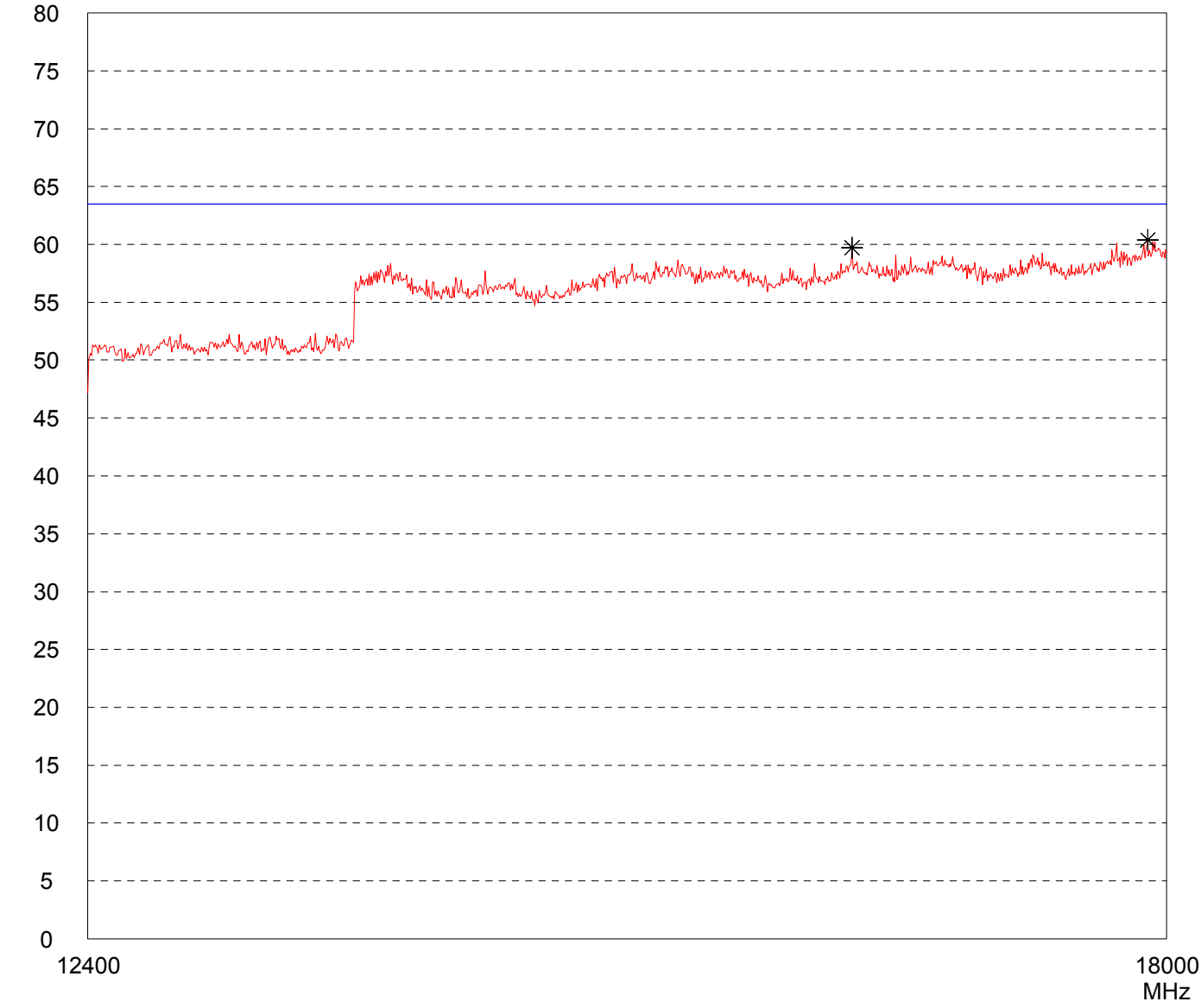
Radiated Emission Test 12.4 GHz - 18 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m

Limit1: FCC 15.209 (1 m) Transducer: EMCO 3160

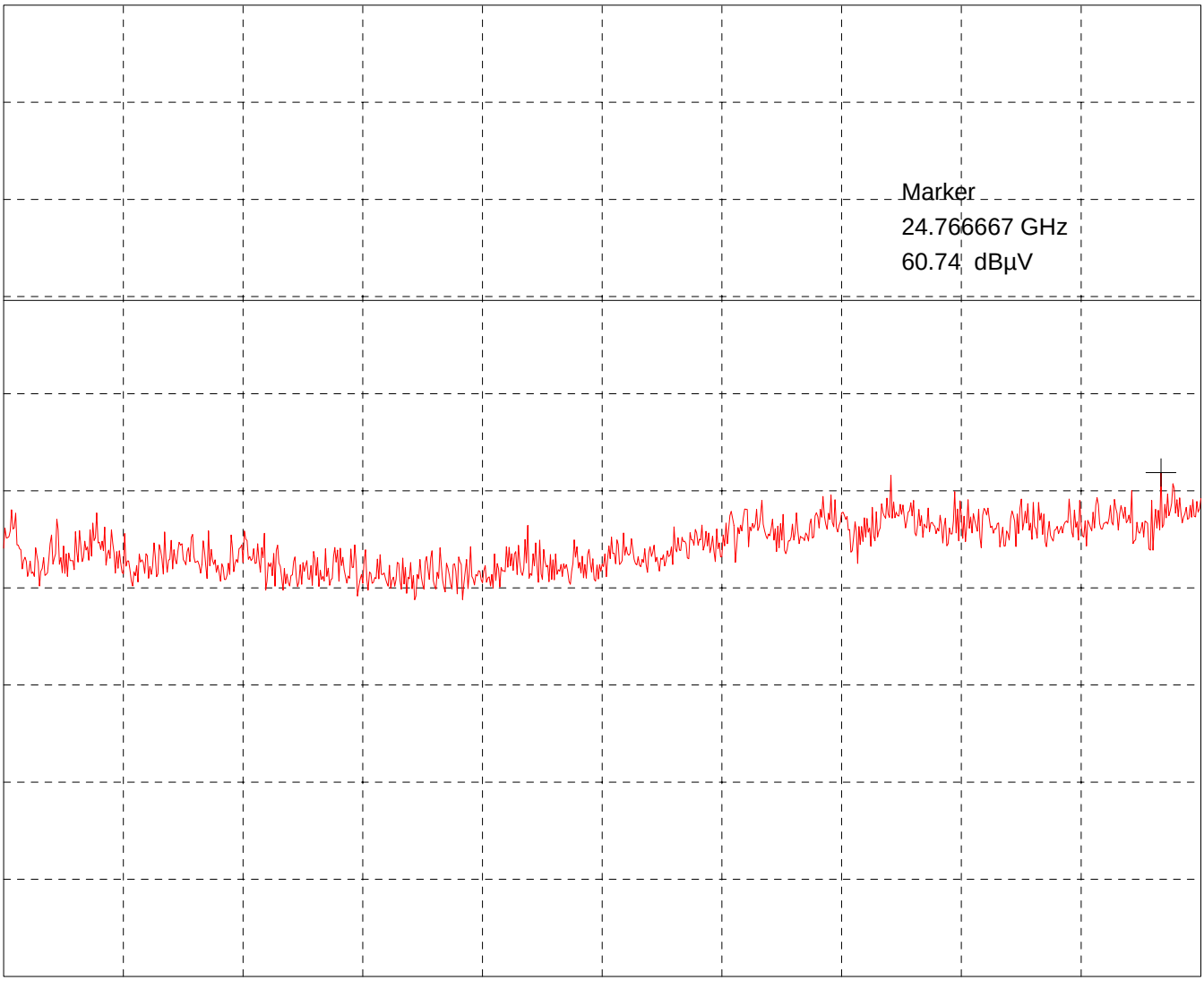


Result: Prescan (VBW = 100 kHz)	Project file: 50941-80945

Radiated Emission Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13 - Distance: 0.5 m - Polarisation: horizontal
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 84.8 dBµV ATT 0 dB Ref. Offset 42.8 dB
5 dB/Div.



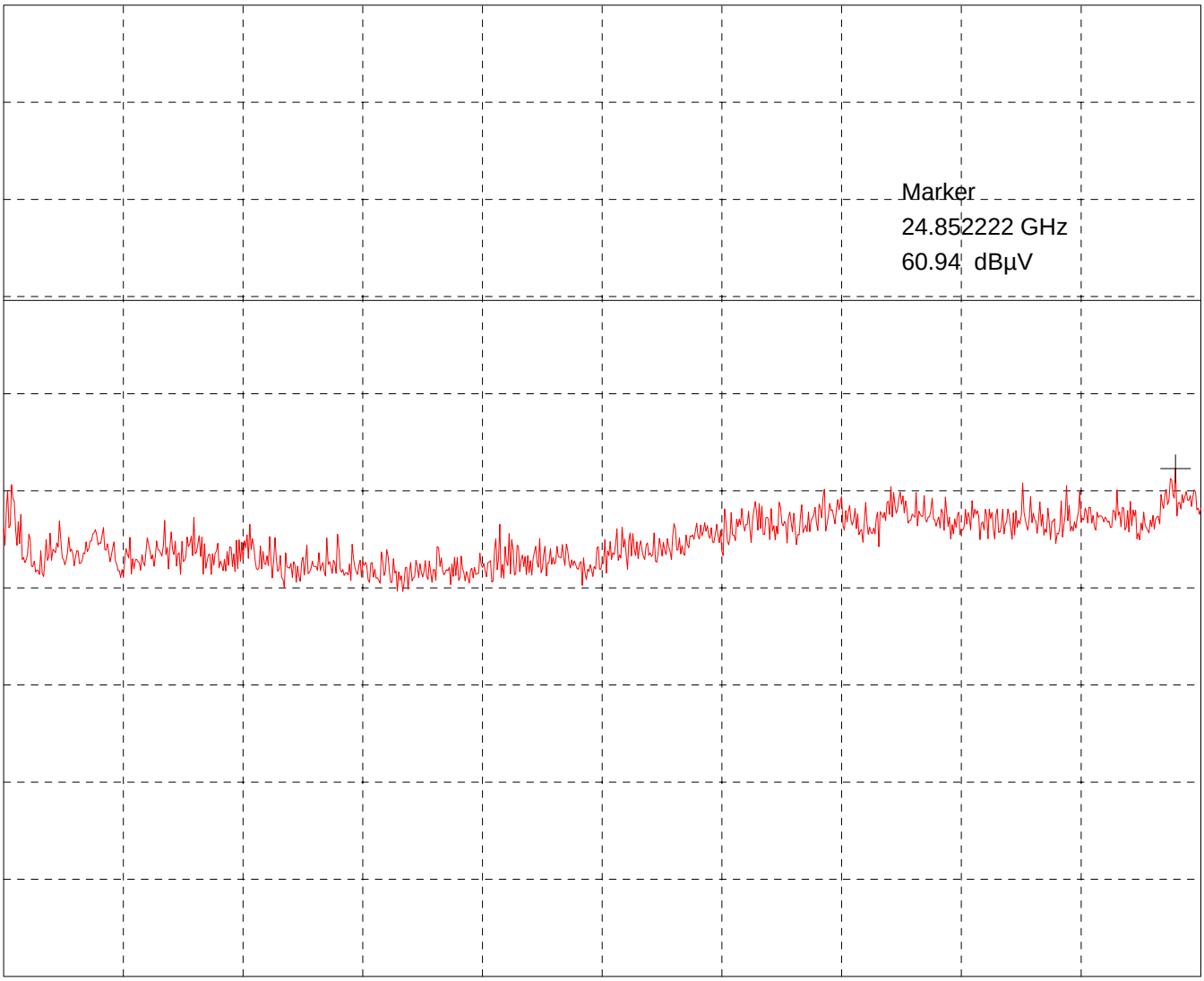
Start 18.000 GHz Stop 25.000 GHz
RBW 1 MHz VBW 1 MHz SWP 40 ms

Tested by: M. Steindl	Project-No.: 50941-080945
Date: 2008/09/26	

Radiated Emission Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13 - Distance: 0.5 m - Polarisation: vertical
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 84.8 dBµV ATT 0 dB Ref. Offset 42.8 dB
5 dB/Div.



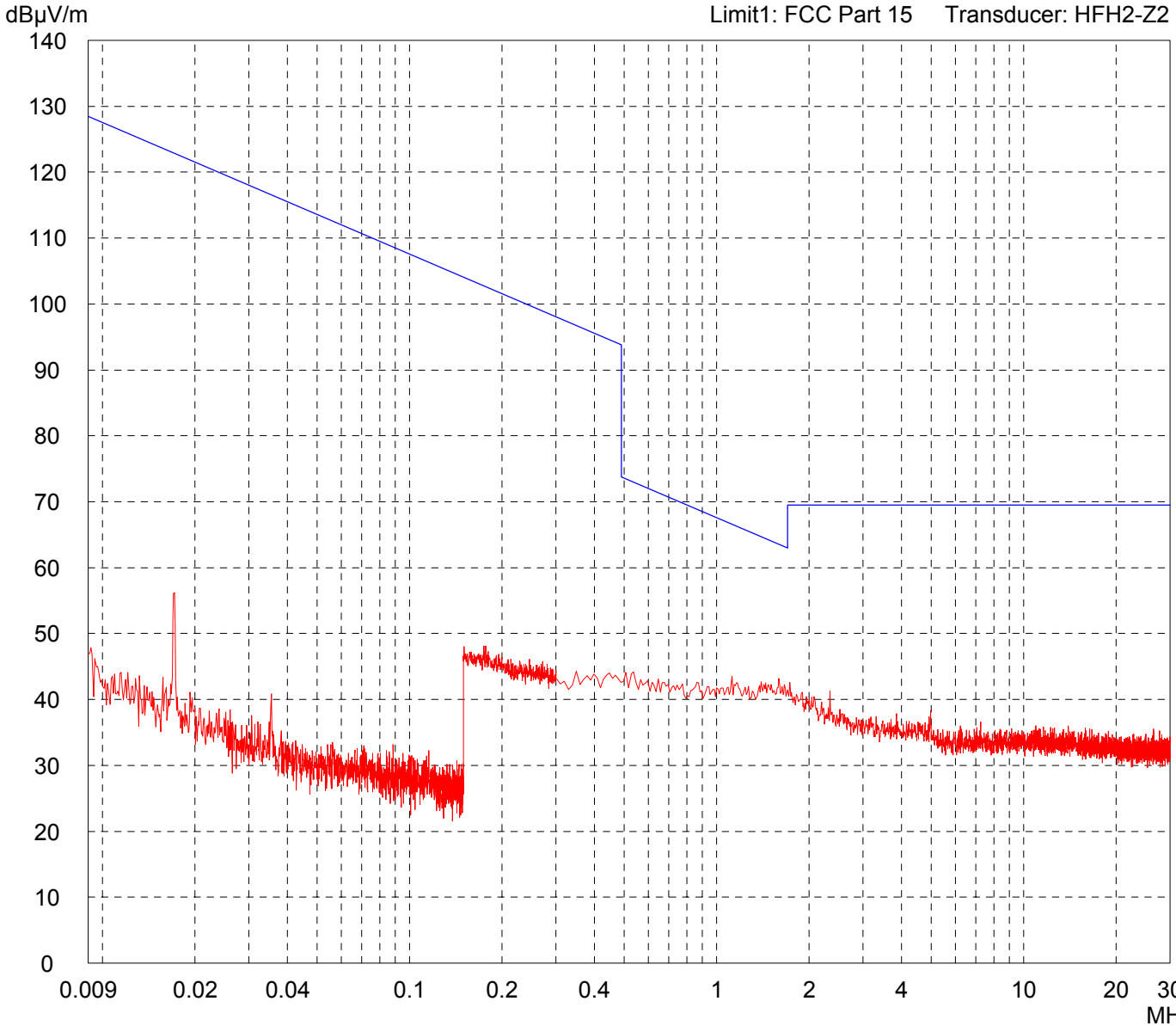
Start 18.000 GHz Stop 25.000 GHz
RBW 1 MHz VBW 1 MHz SWP 40 ms

Tested by: M. Steindl	Project-No.: 50941-080945
Date: 2008/09/26	

Radiated Emission Test 9 kHz - 30 MHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: by hand / File name: default.emi	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges

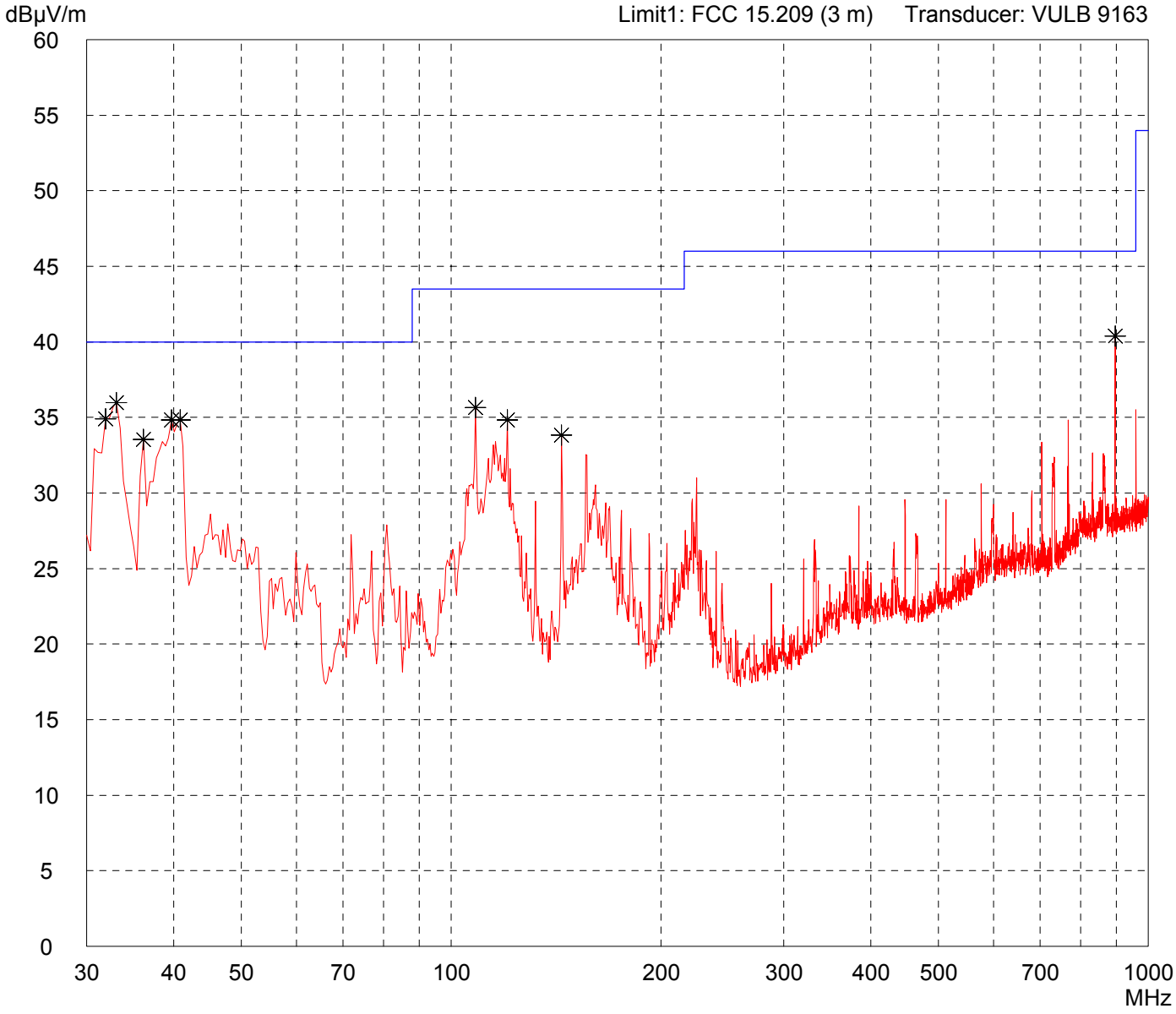


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges

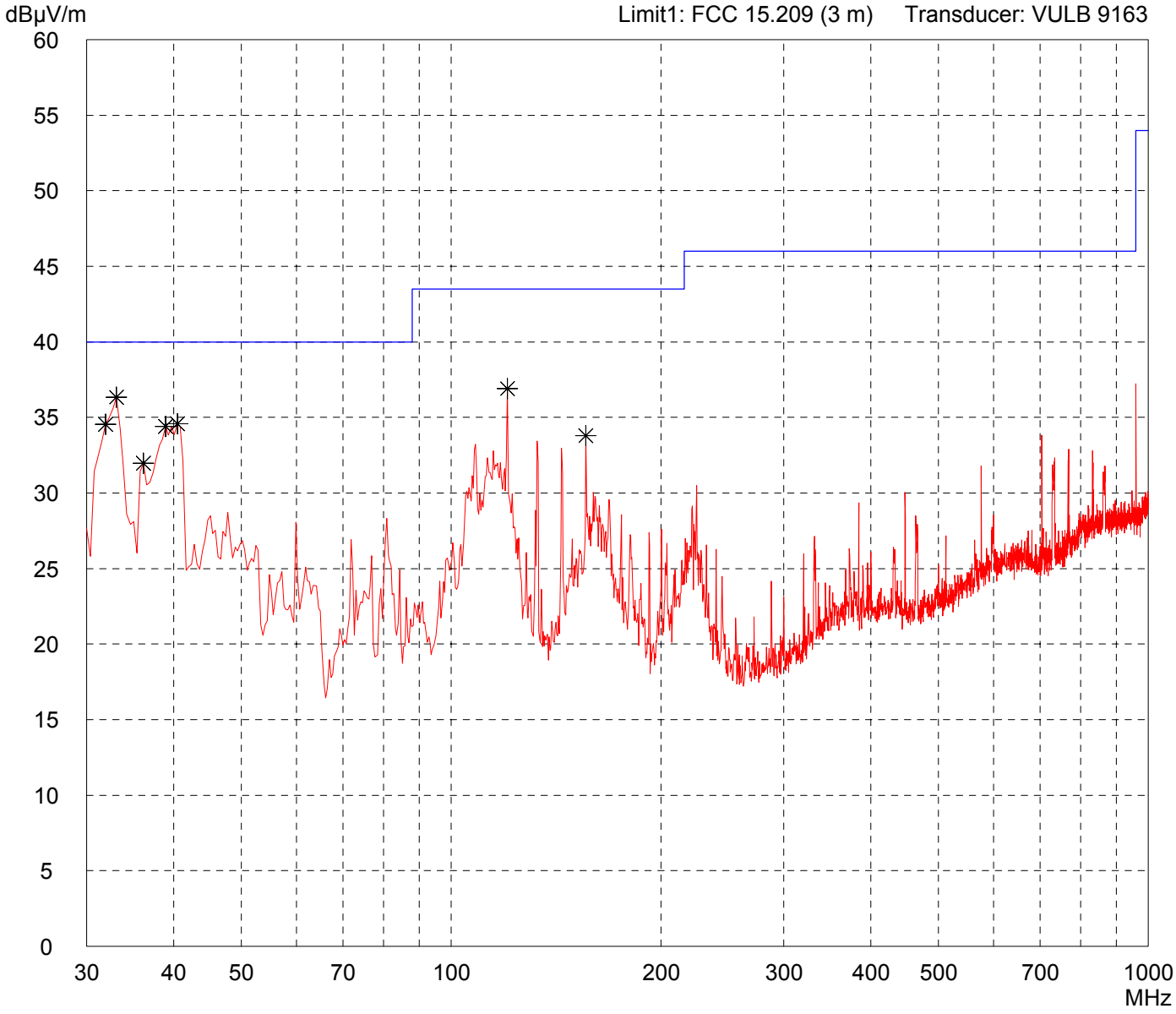


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

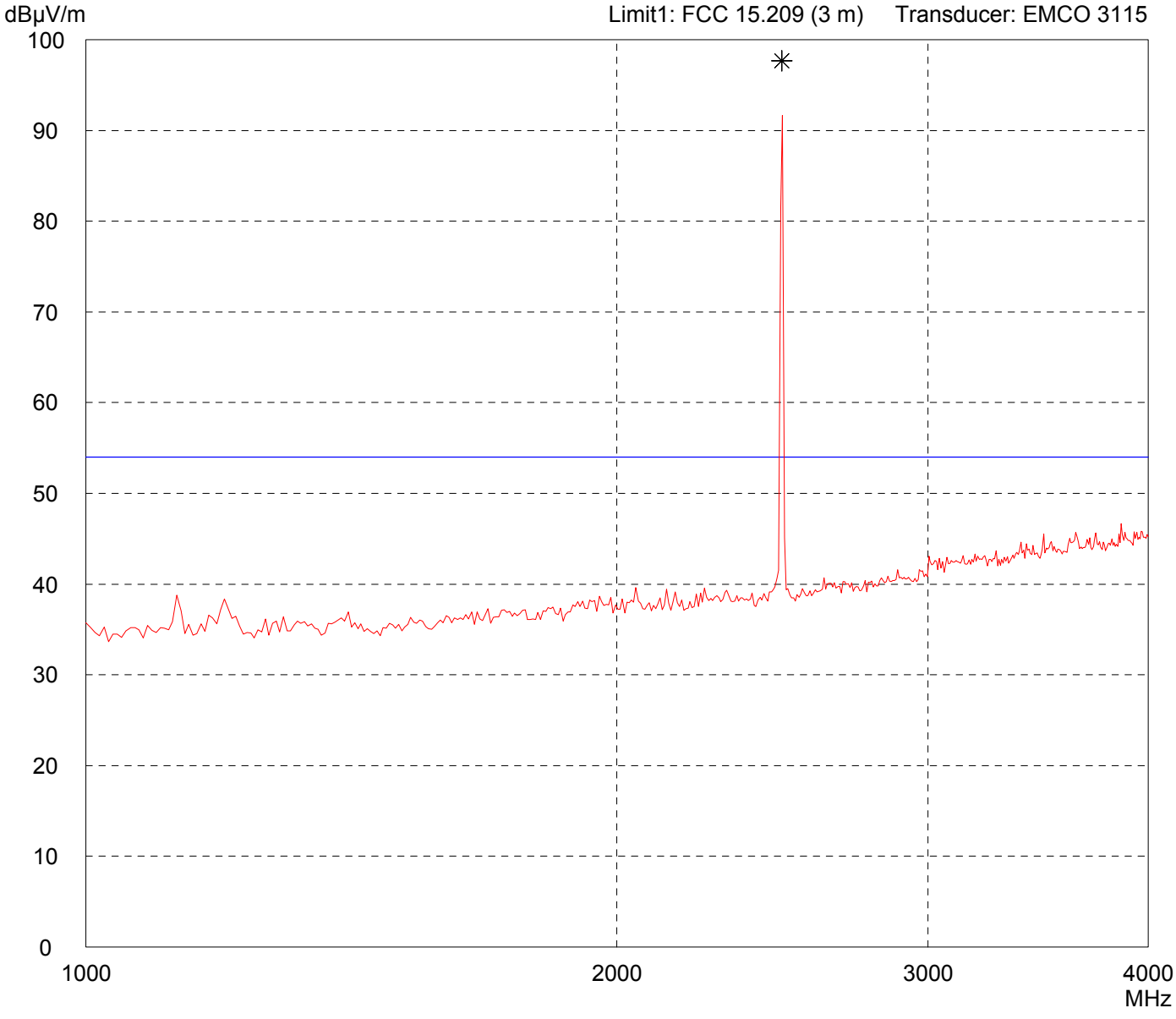
Detector: Peak	List of values: 10 dB Margin / 50 Subranges



Result: Prescan	Project file: 50941-80945

Radiated Emission Test 1 GHz - 4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	
Detector: Peak	List of values: Selected by hand

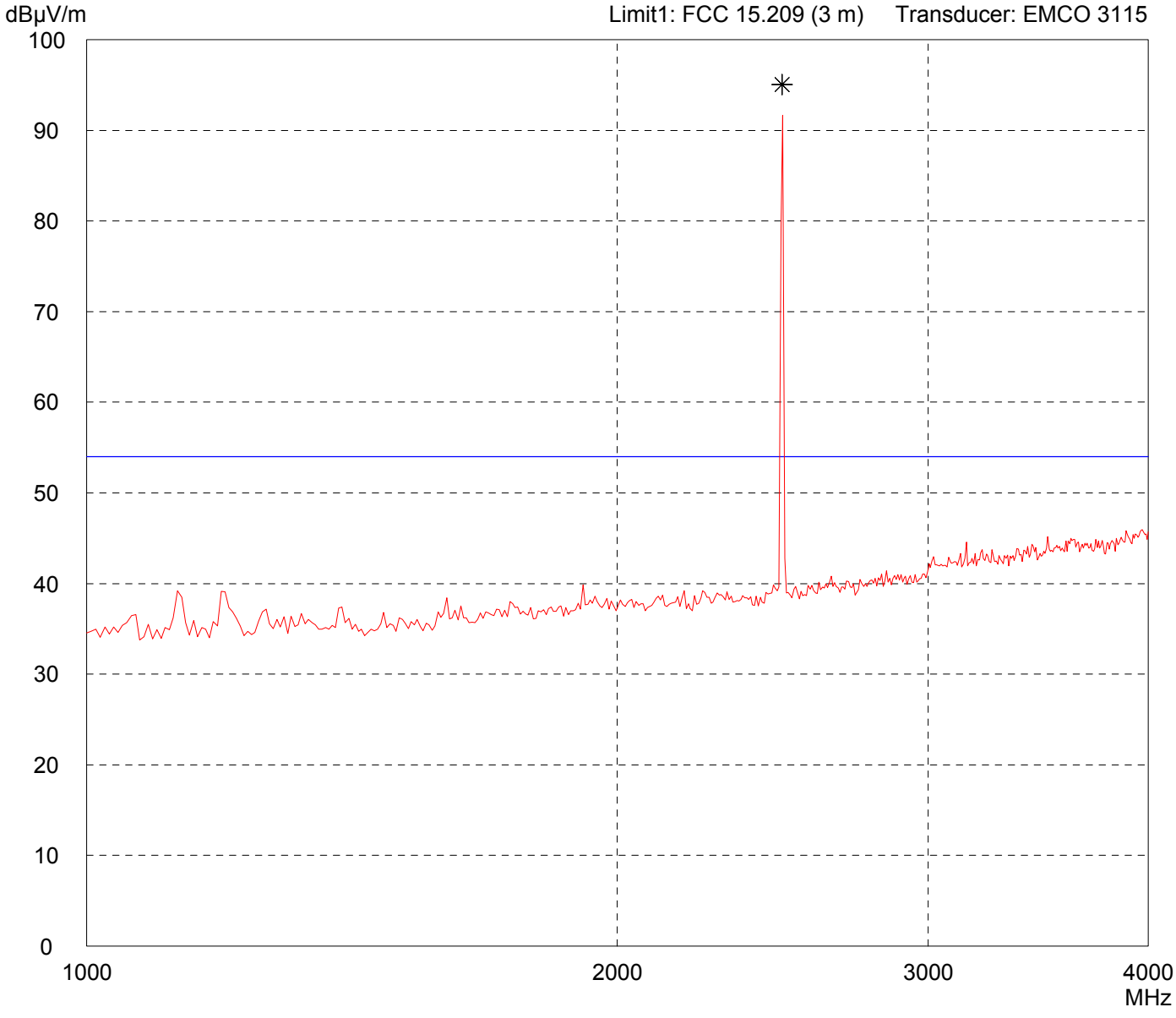


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 1 GHz - 4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

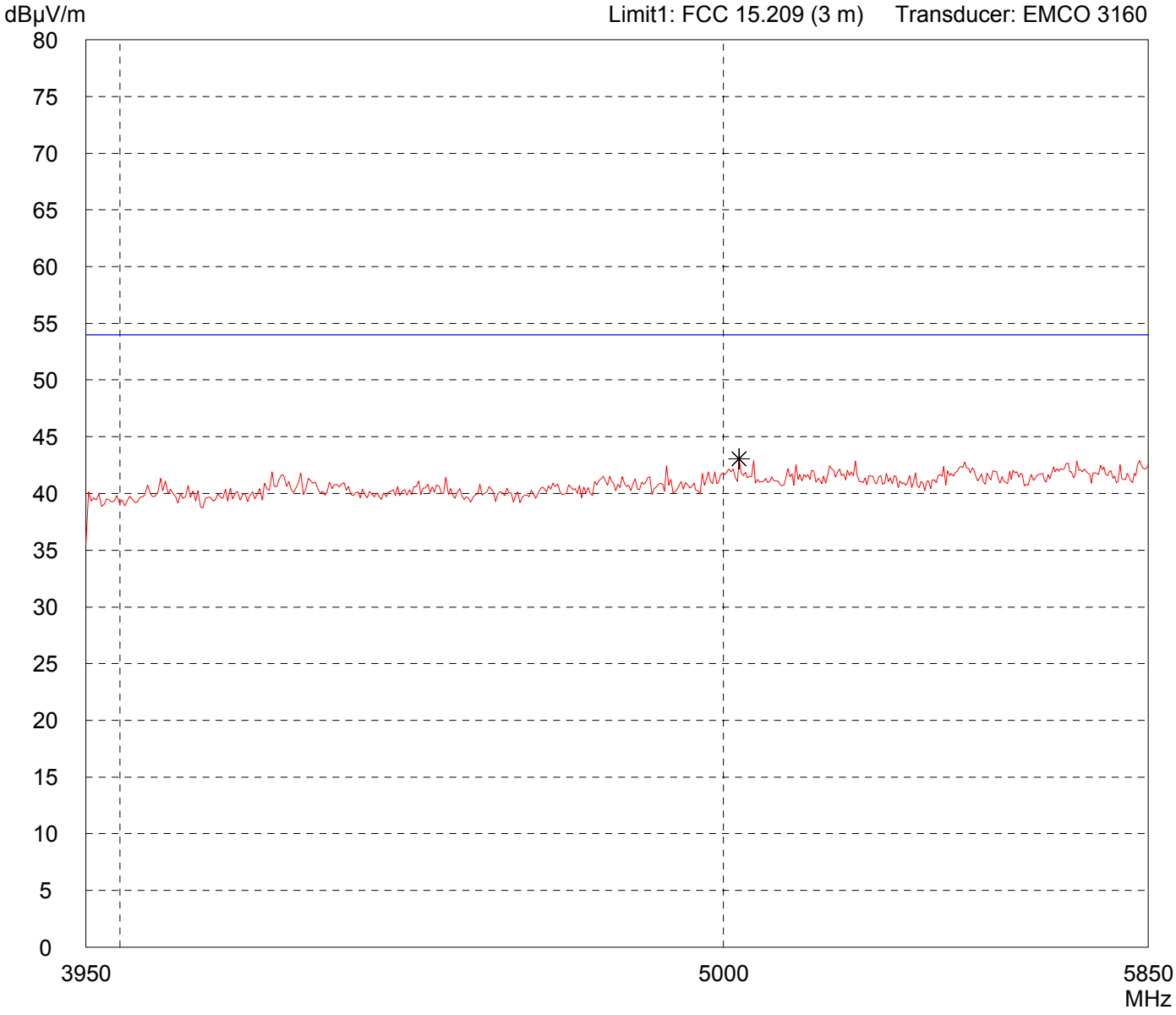


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 3.95 GHz - 5.85 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

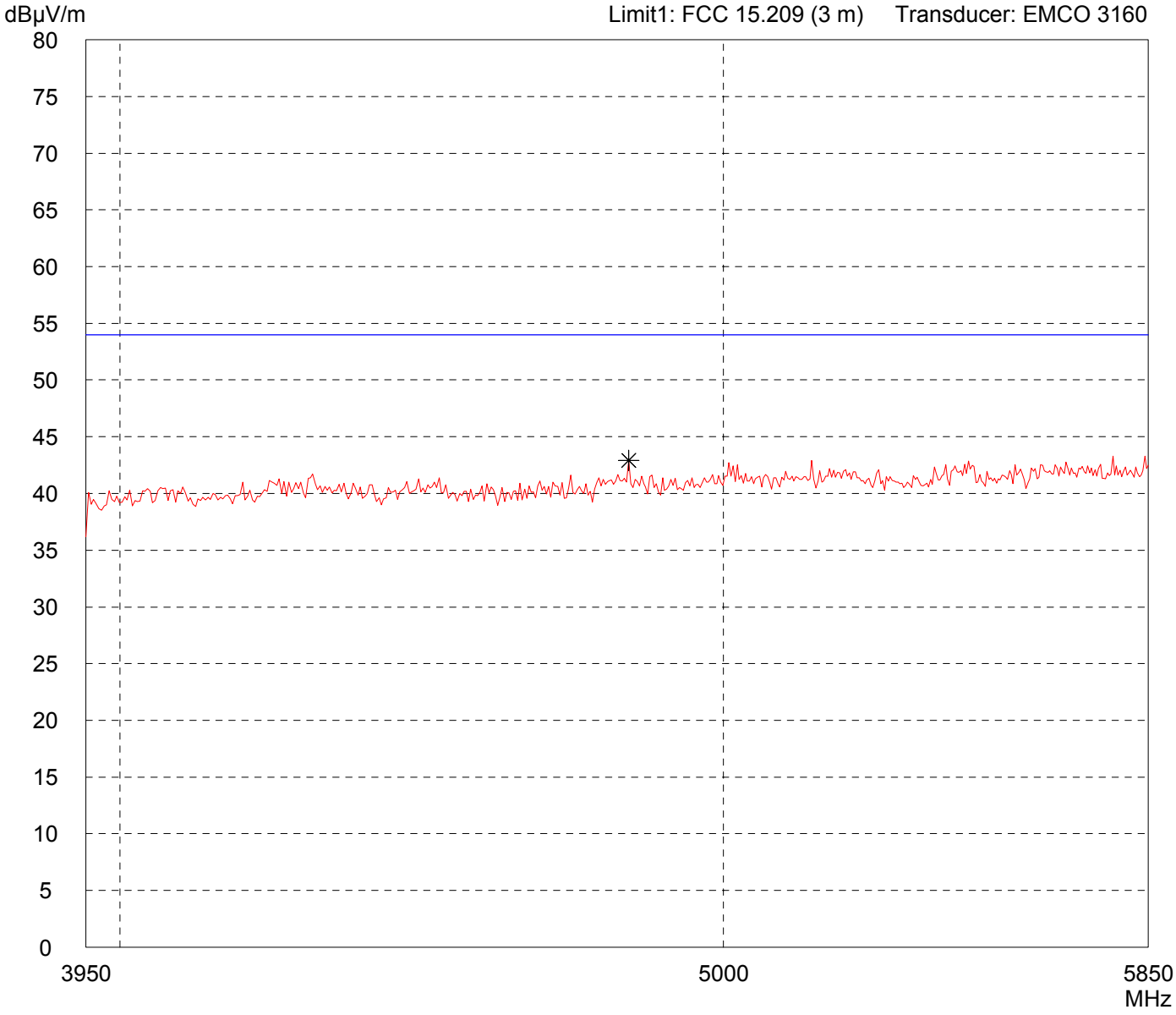


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 3.95 GHz - 5.85 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continously Power: 14 dBm Channel: 26
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

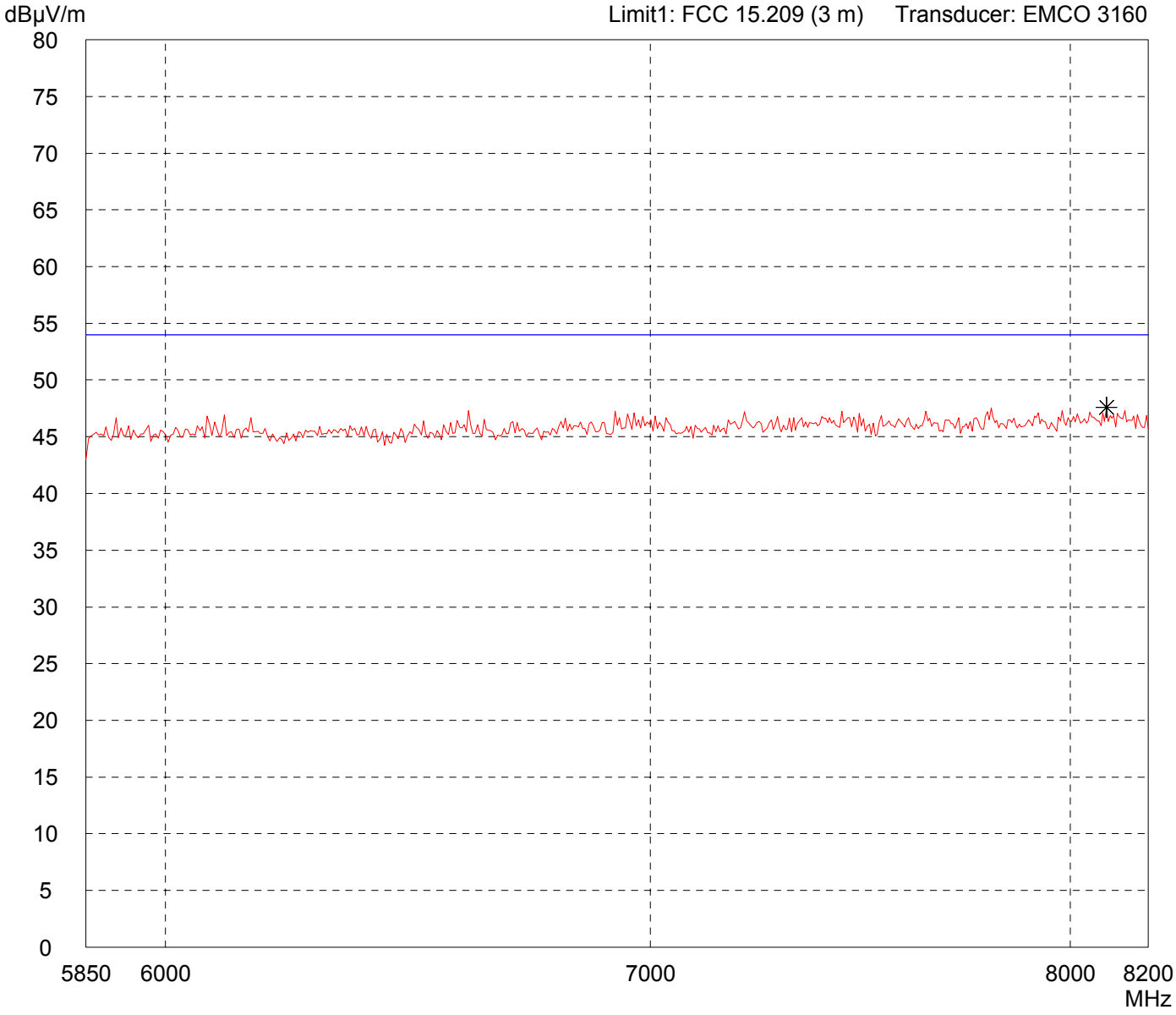


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continuously Power: 14 dBm Channel: 26
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

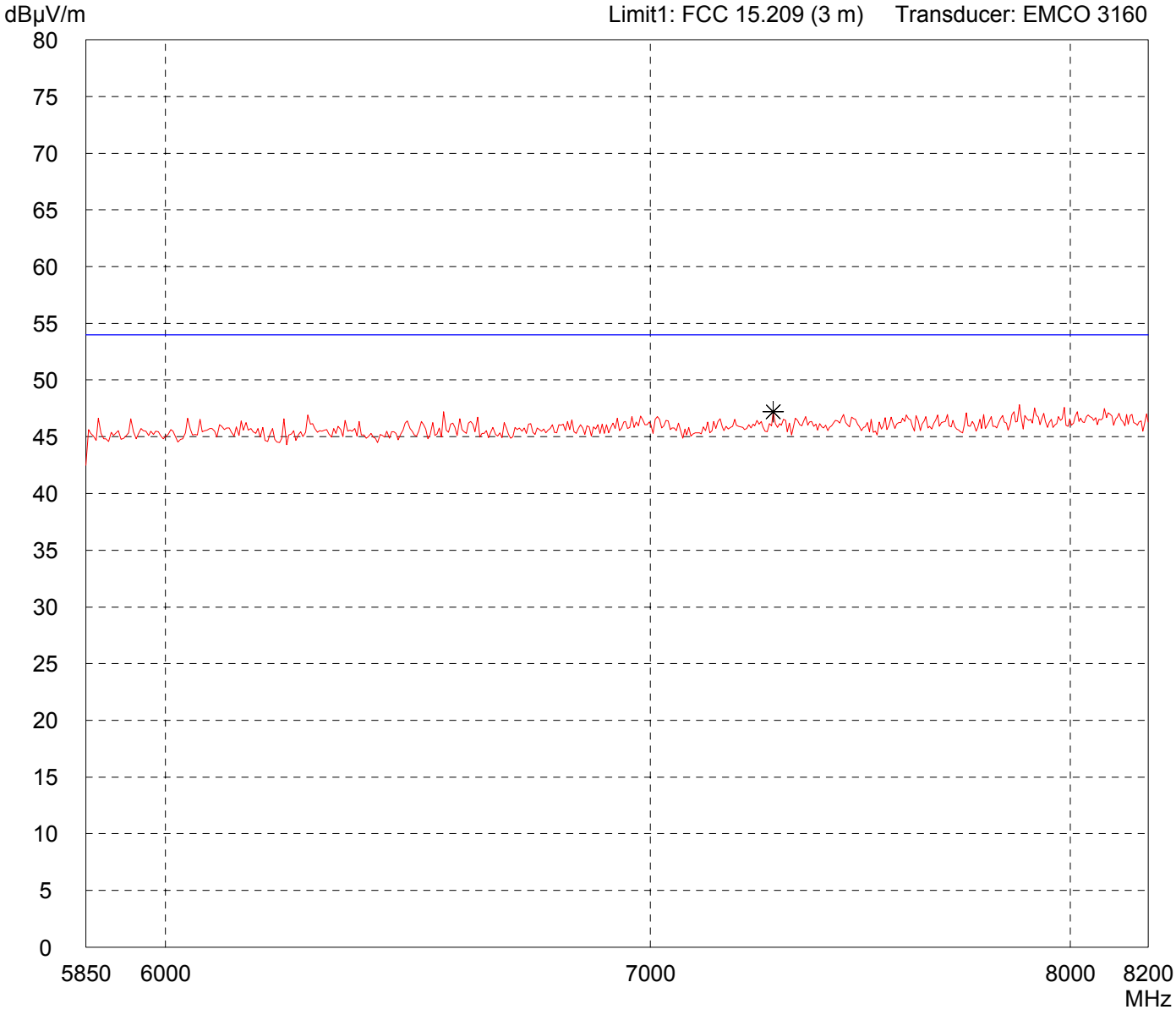


Result: Limit kept	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded)
Serial no.: 0742 3444	- With DELL laptop and VariService-USB
Applicant: Identec Solutions Deutschland GmbH	- Transmitting continuously Power: 14 dBm Channel: 26
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand



Result: Prescan	Project file: 50941-80945

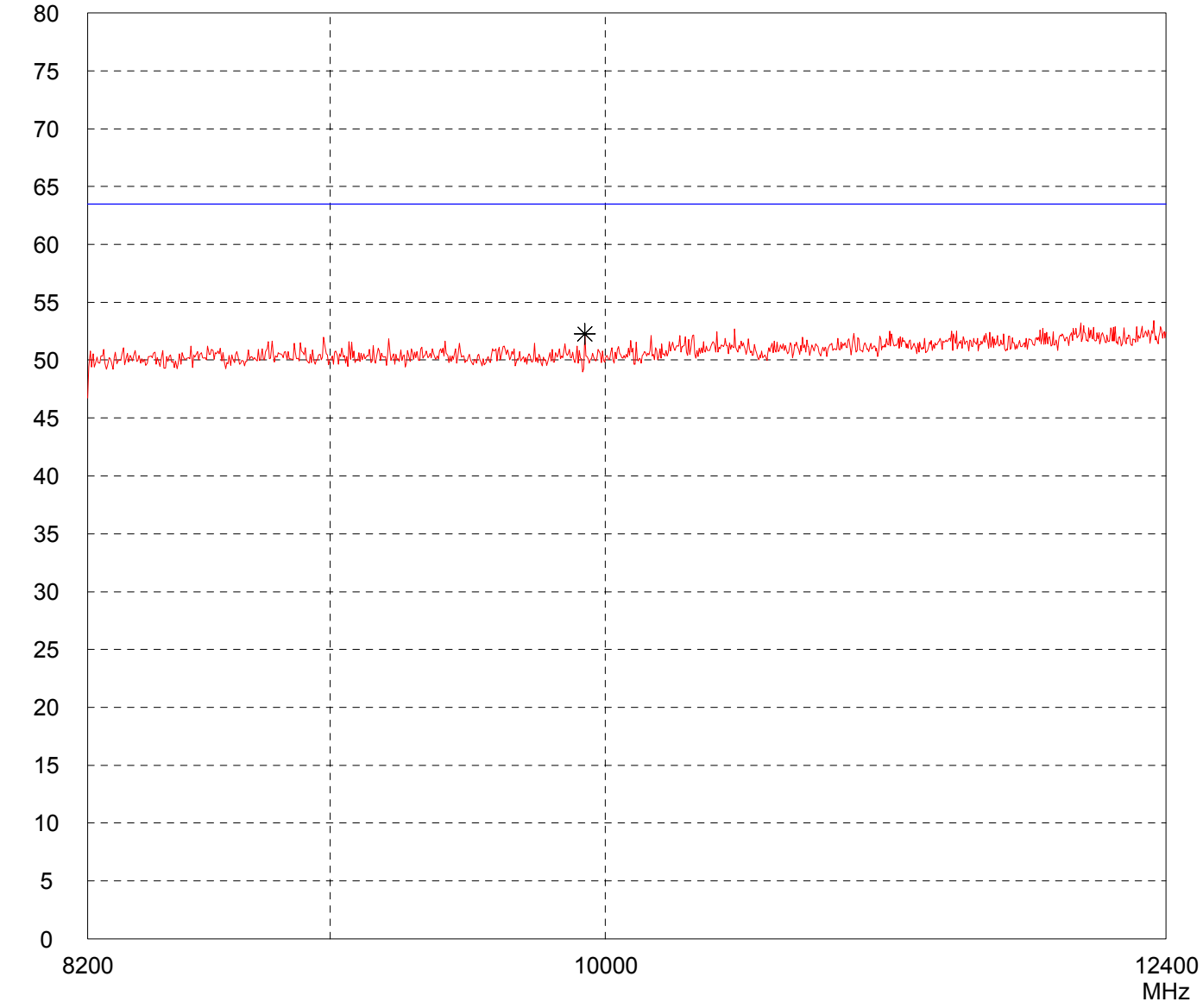
Radiated Emission Test 8.2 GHz - 12.4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m

Limit1: FCC 15.209 (1 m) Transducer: EMCO 3160



Result: Prescan	Project file: 50941-80945

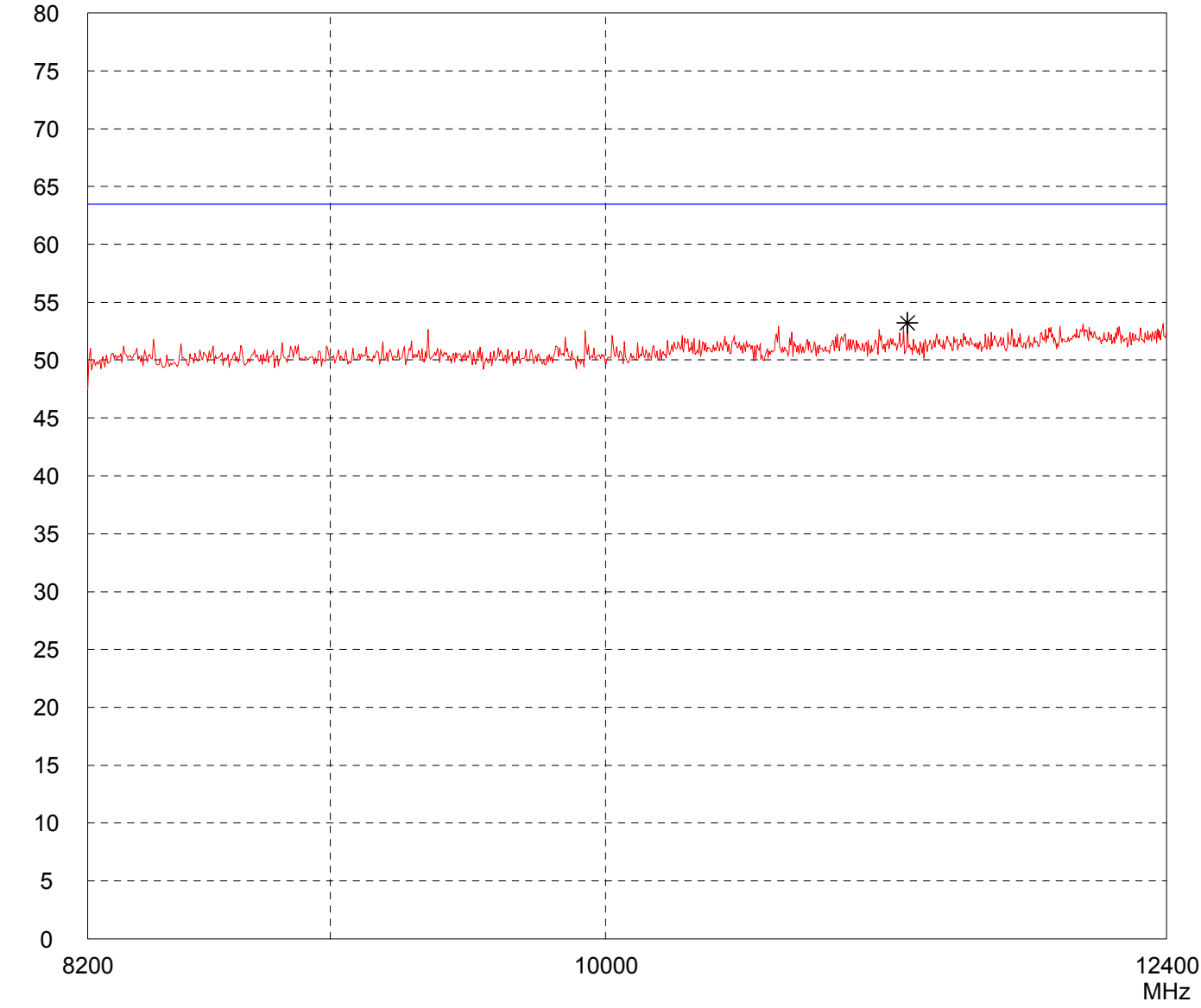
Radiated Emission Test 8.2 GHz - 12.4 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m

Limit1: FCC 15.209 (1 m) Transducer: EMCO 3160



Result: Prescan	Project file: 50941-80945

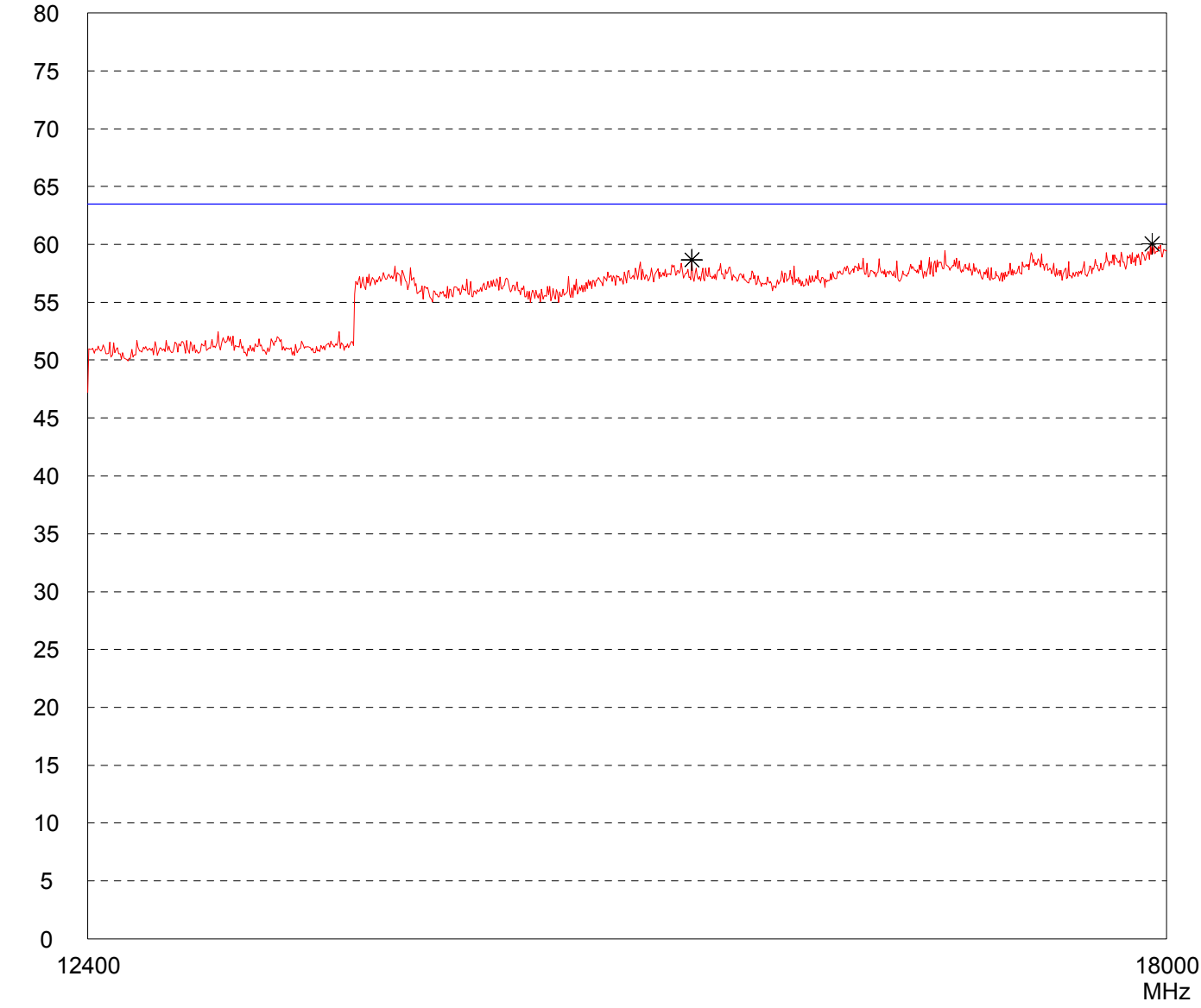
Radiated Emission Test 12.4 GHz - 18 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m

Limit1: FCC 15.209 (1 m) Transducer: EMCO 3160



Result: Prescan (VBW = 100 kHz)	Project file: 50941-80945

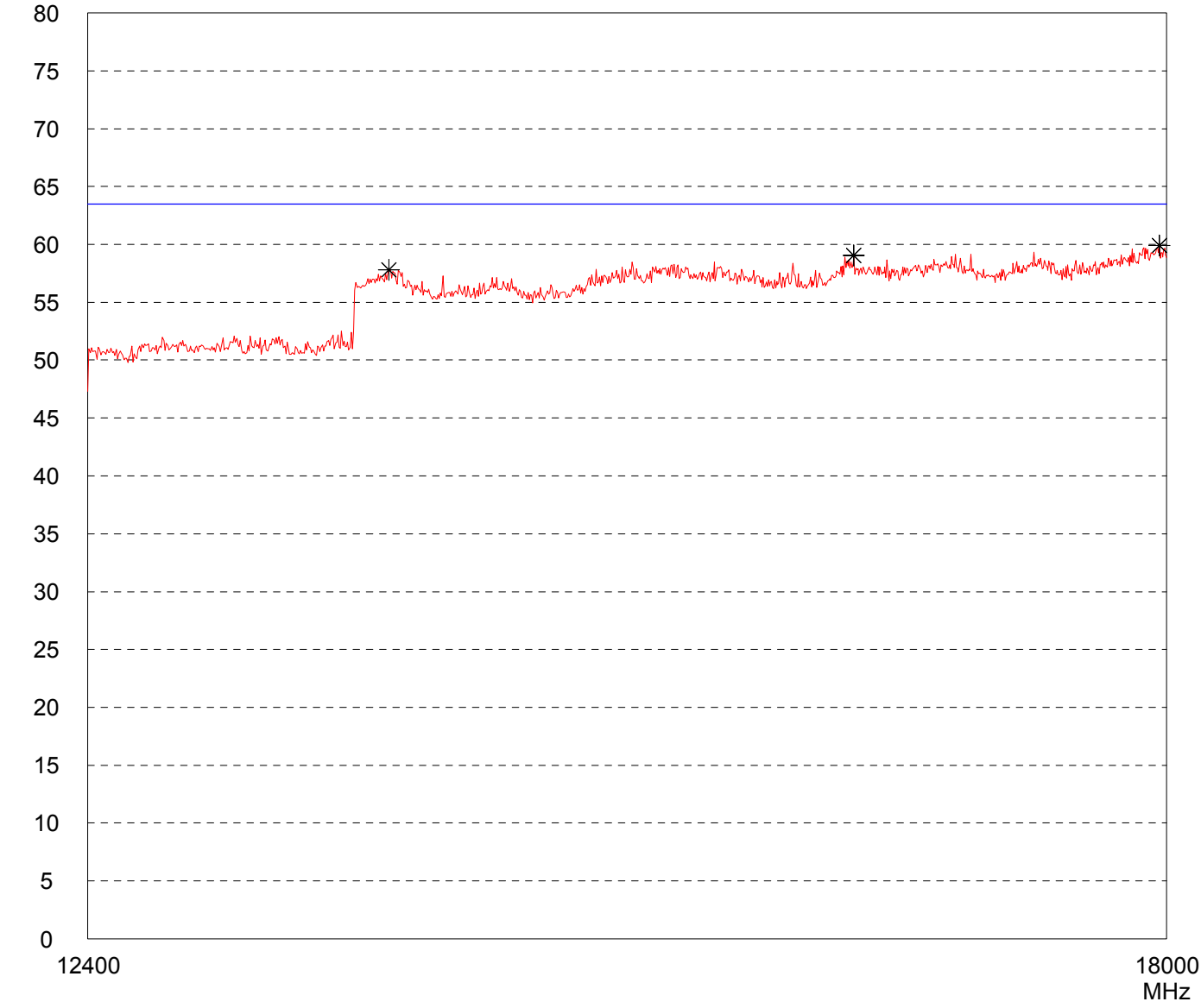
Radiated Emission Test 12.4 GHz - 18 GHz
acc. to FCC Part 15 Subpart C (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m

Limit1: FCC 15.209 (1 m) Transducer: EMCO 3160

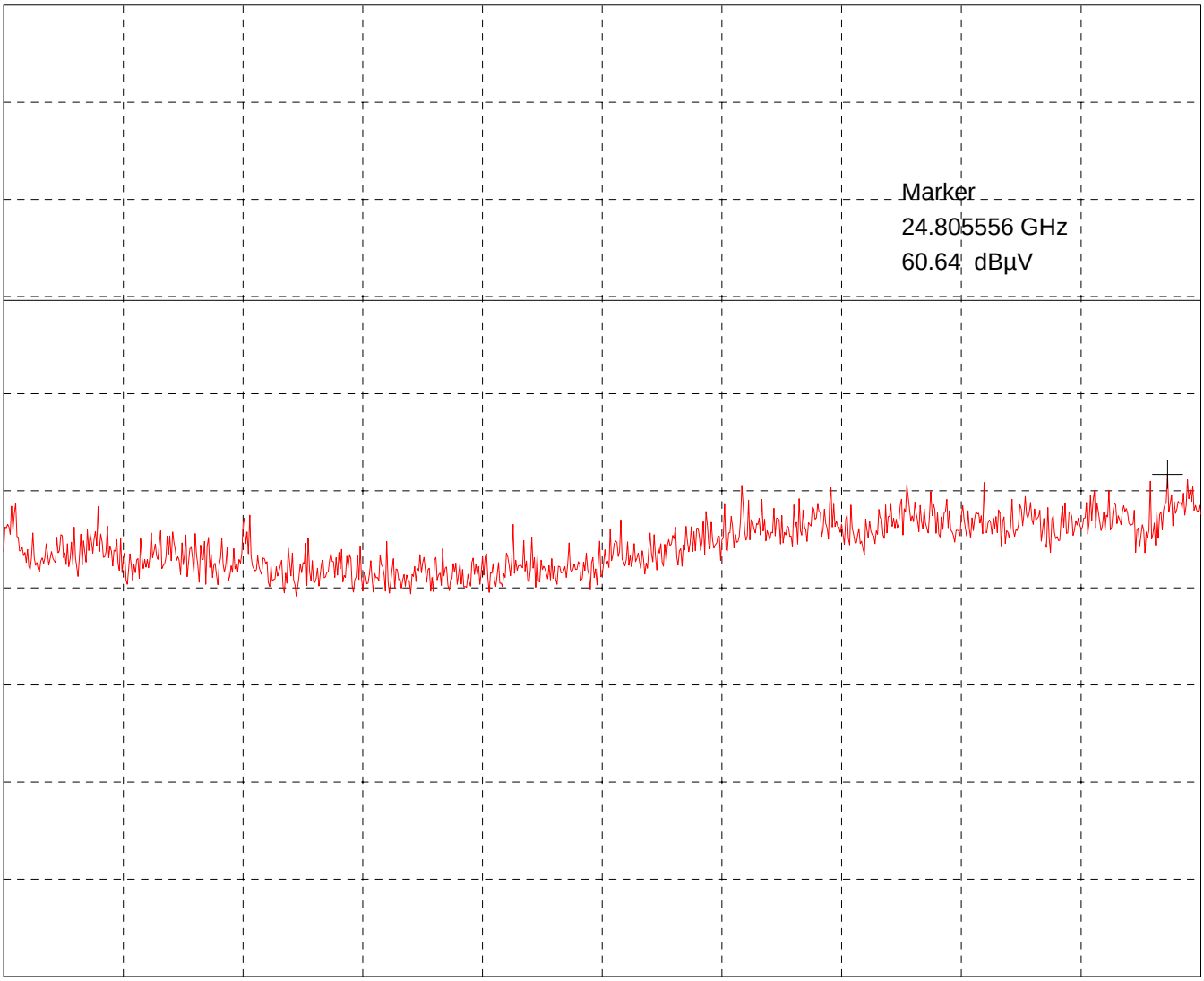


Result: Prescan (VBW = 100 kHz)	Project file: 50941-80945

Radiated Emission Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26 - Distance: 0.5 m - Polarisation: horizontal
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 84.8 dBµV ATT 0 dB Ref. Offset 42.8 dB
5 dB/Div.



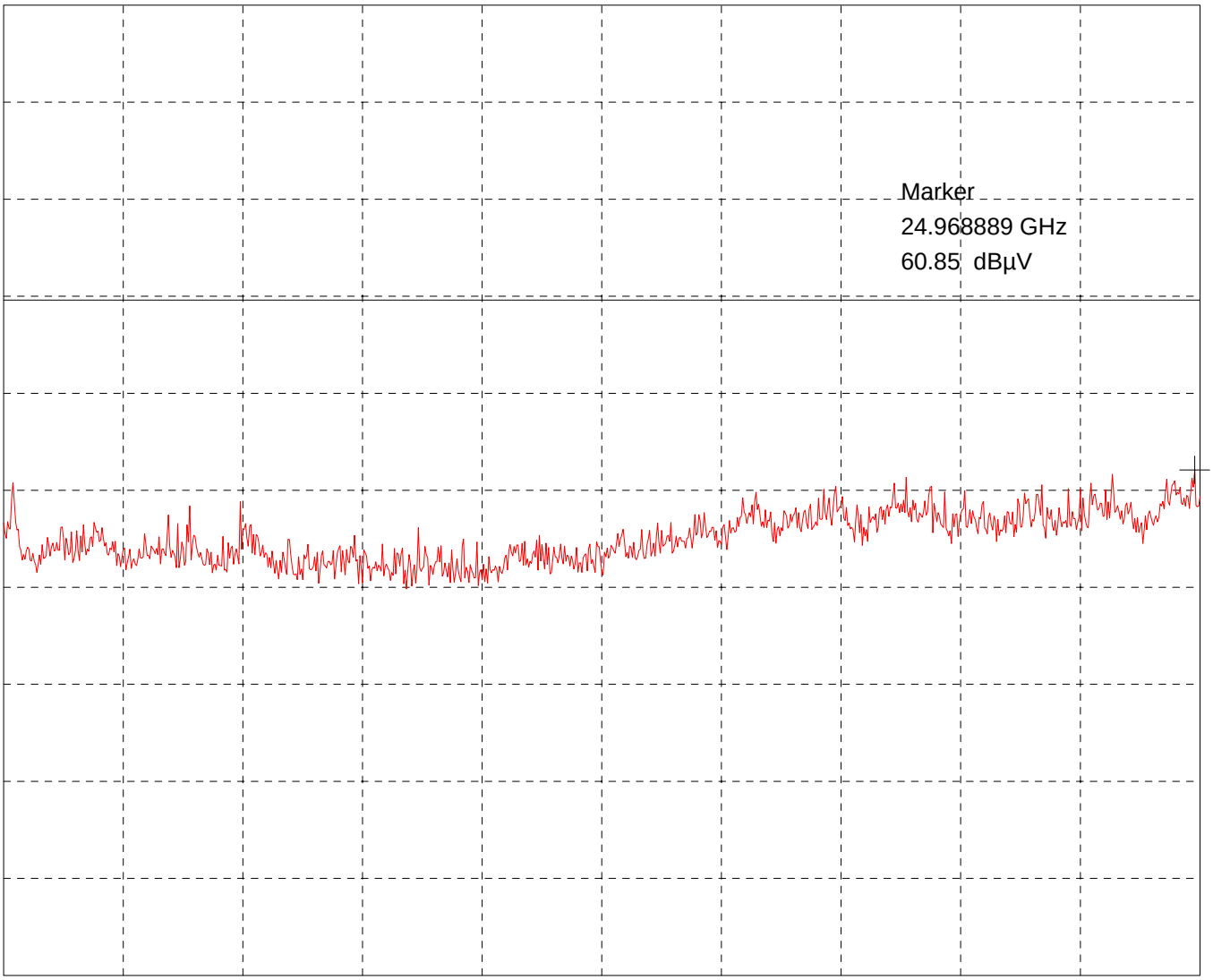
Start 18.000 GHz Stop 25.000 GHz
RBW 1 MHz VBW 1 MHz SWP 40 ms

Tested by: M. Steindl	Project-No.: 50941-080945
Date: 2008/09/26	

Radiated Emission Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26 - Distance: 0.5 m - Polarisation: vertical
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 84.8 dBµV ATT 0 dB Ref. Offset 42.8 dB
5 dB/Div.



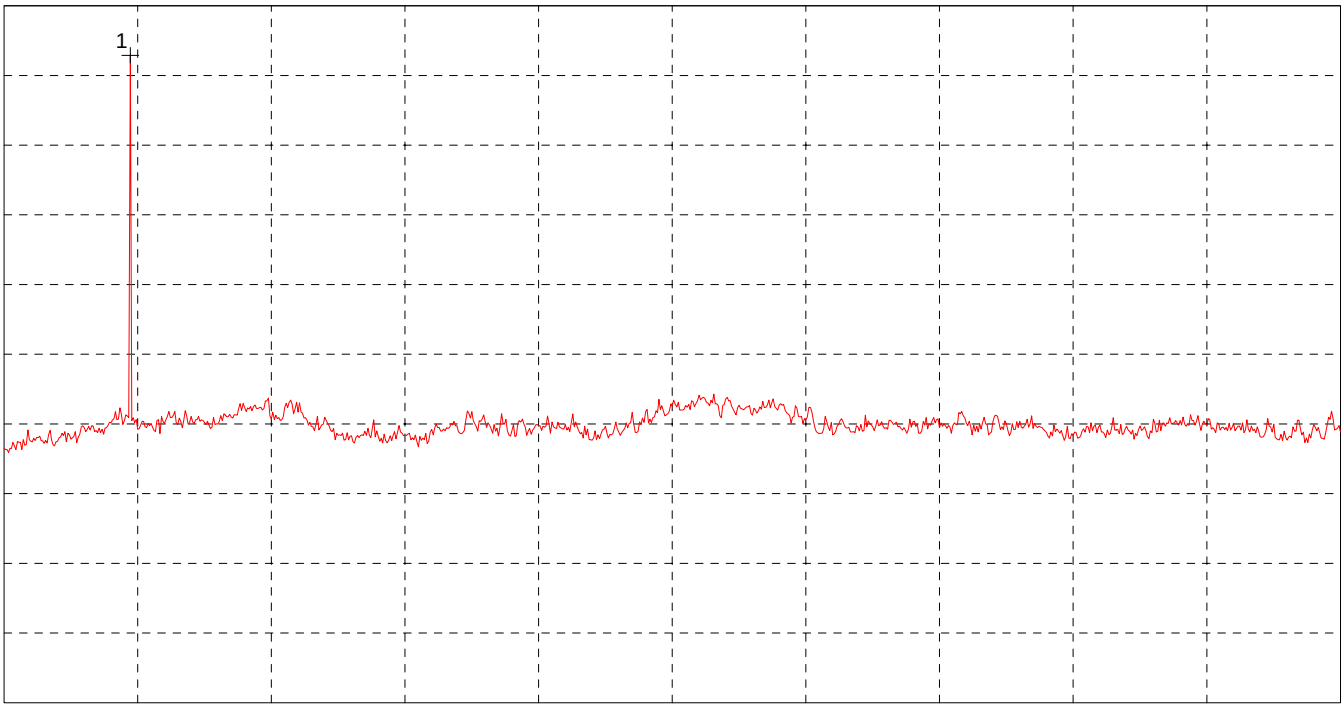
Start 18.000 GHz Stop 25.000 GHz
RBW 1 MHz VBW 1 MHz SWP 40 ms

Tested by: M. Steindl	Project-No.: 50941-080945
Date: 2008/09/26	

Conducted Power Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 0
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 5 dBm ATT 35 dB
10 dB/Div.



Start 30.000 MHz Stop 25.000 GHz
RBW 100 kHz VBW 100 kHz SWP 7.60 s

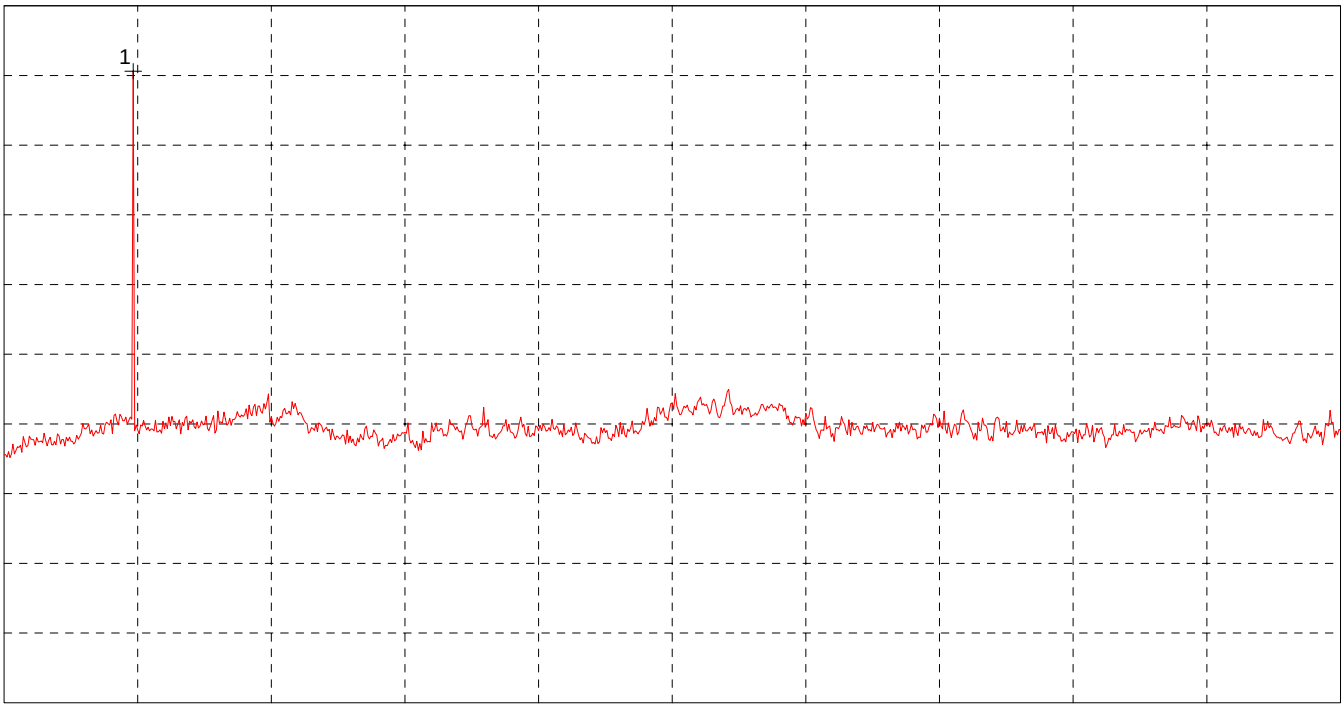
Multi Marker List		
No. 1	2.388278 GHz	-2.11 dBm

Tested by: M. Steidnl	Project-No.: 50941-080945
Date: 2008/09/30	

Conducted Power Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 13
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 5 dBm ATT 35 dB
10 dB/Div.



Start 30.000 MHz Stop 25.000 GHz
RBW 100 kHz VBW 100 kHz SWP 7.60 s

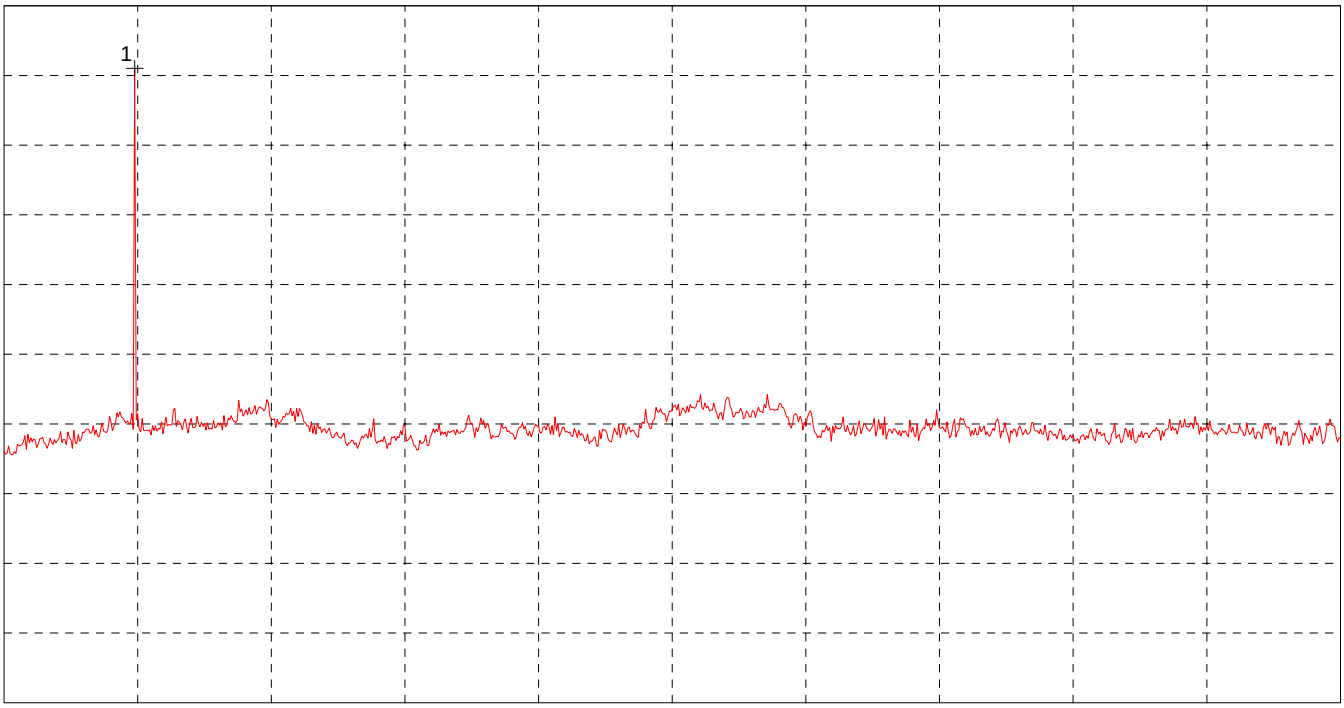
Multi Marker List		
No. 1	2.443767 GHz	-4.39 dBm

Tested by: M. Steidnl	Project-No.: 50941-080945
Date: 2008/09/30	

Conducted Power Test acc. to FCC Part 15 Subpart C

Model: PC3440 FCC Version	Mode: - DC 24 V power supply - With DELL laptop and VariService-USB - Transmitting continously Power: 14 dBm Channel: 26
Serial No.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	

Ref.Level 5 dBm ATT 35 dB
10 dB/Div.



Start 30.000 MHz Stop 25.000 GHz
RBW 100 kHz VBW 100 kHz SWP 7.60 s

Multi Marker List

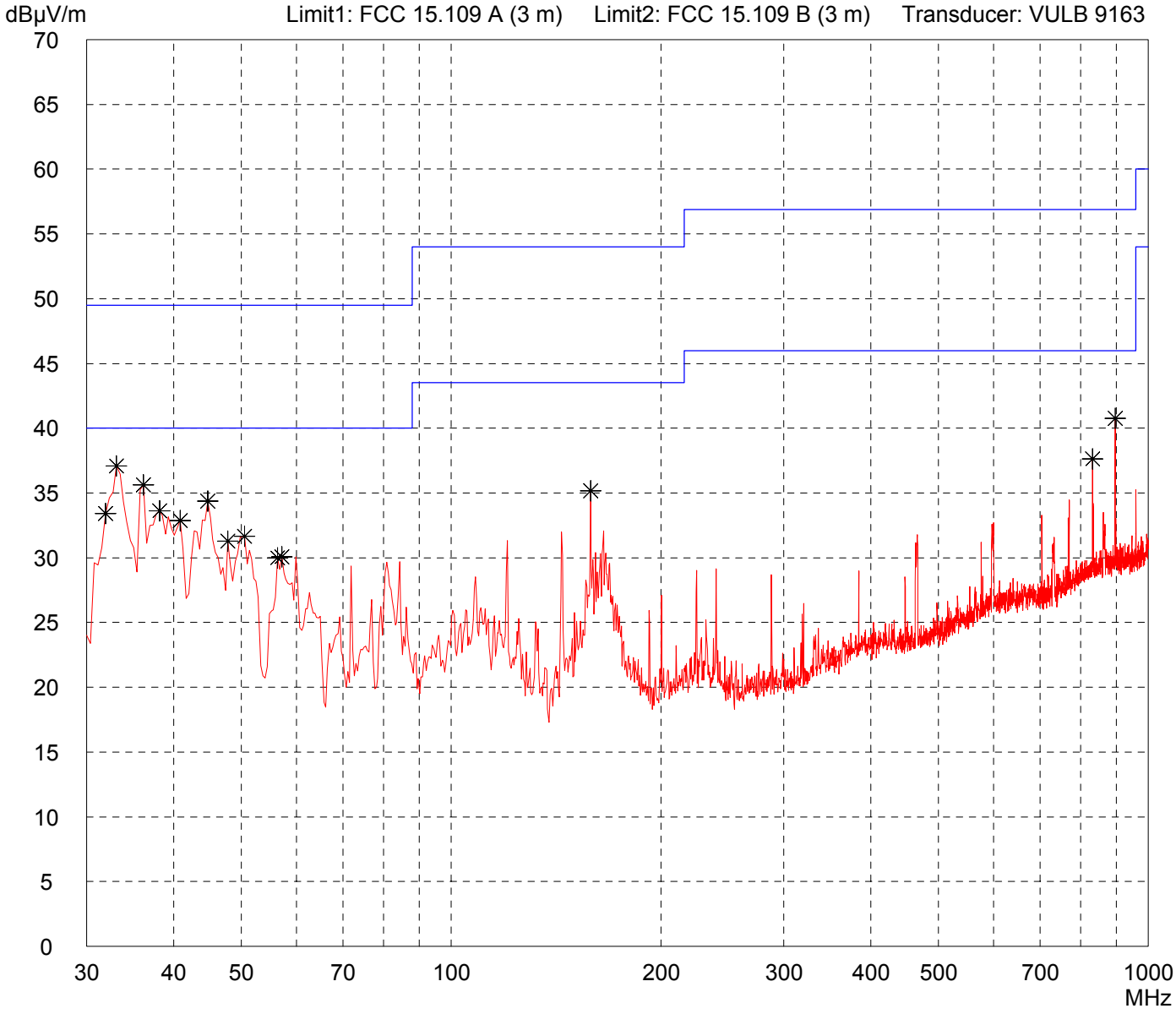
No. 1 2.471511 GHz -3.96 dBm

Tested by: M. Steidnl	Project-No.: 50941-080945
Date: 2008/09/30	

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges

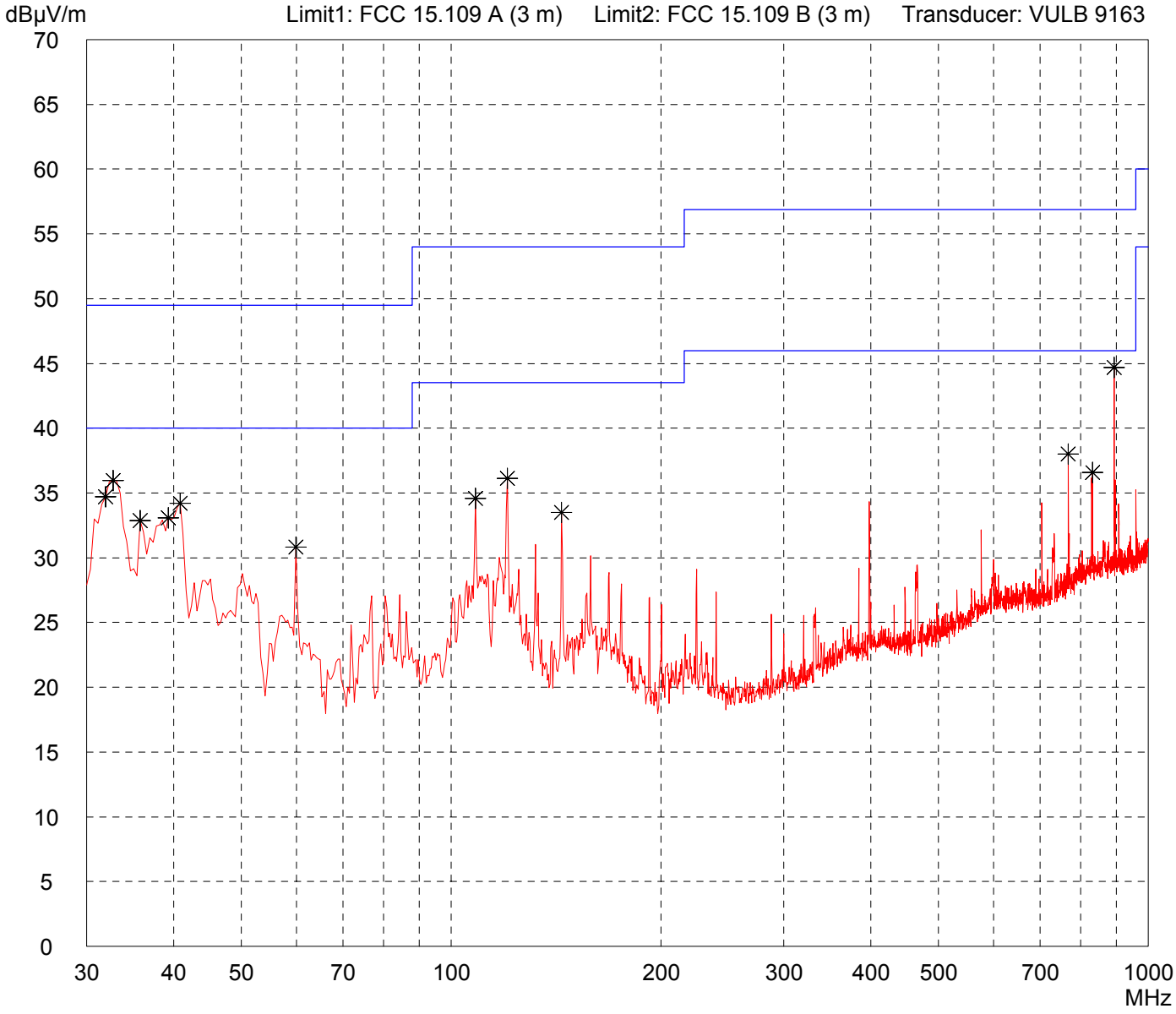


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges

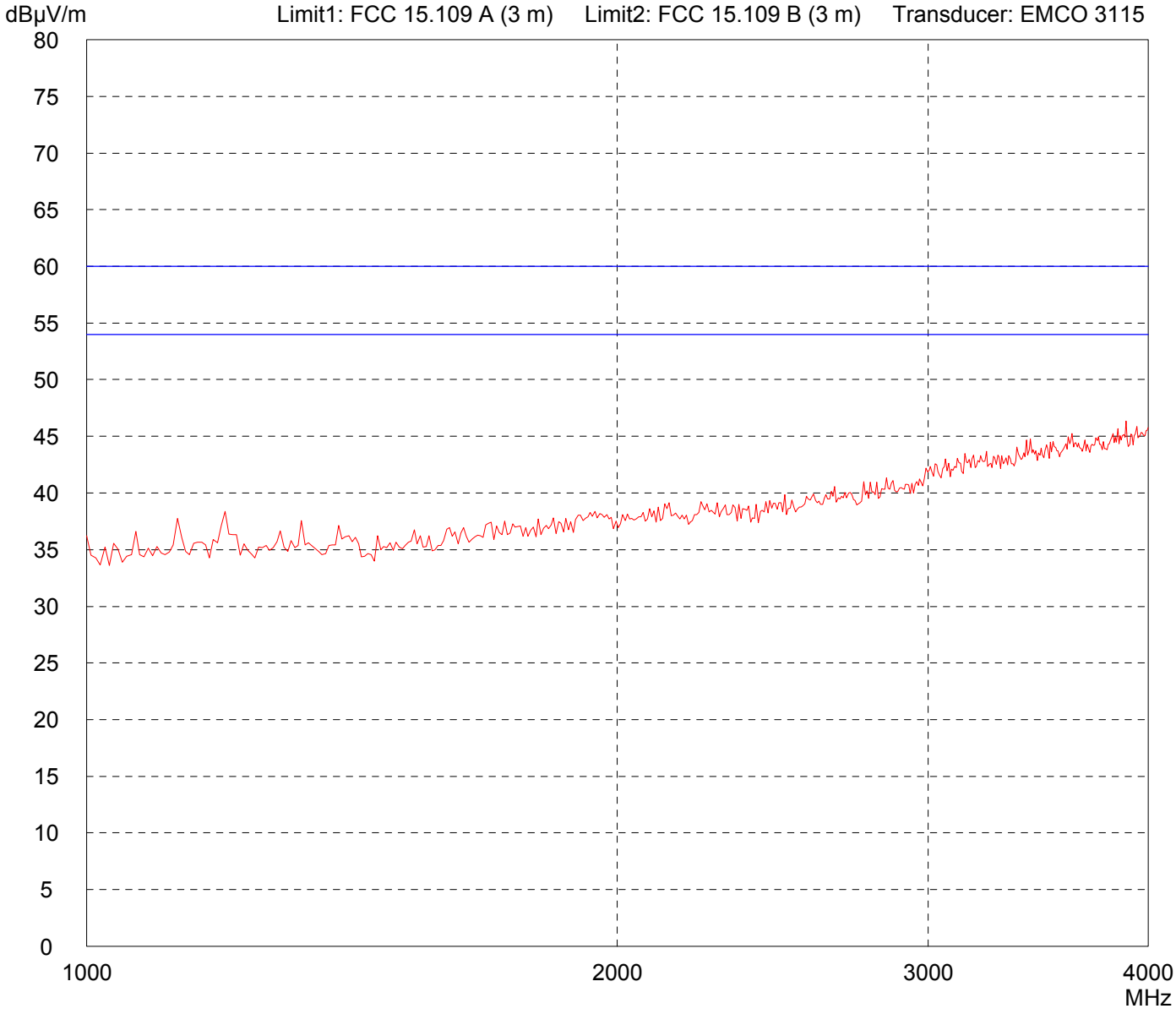


Result: Prescan	Project file: 50941-80945

Radiated Emission Test 1 GHz - 4 GHz
acc. to FCC Part 15 Subpart B (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

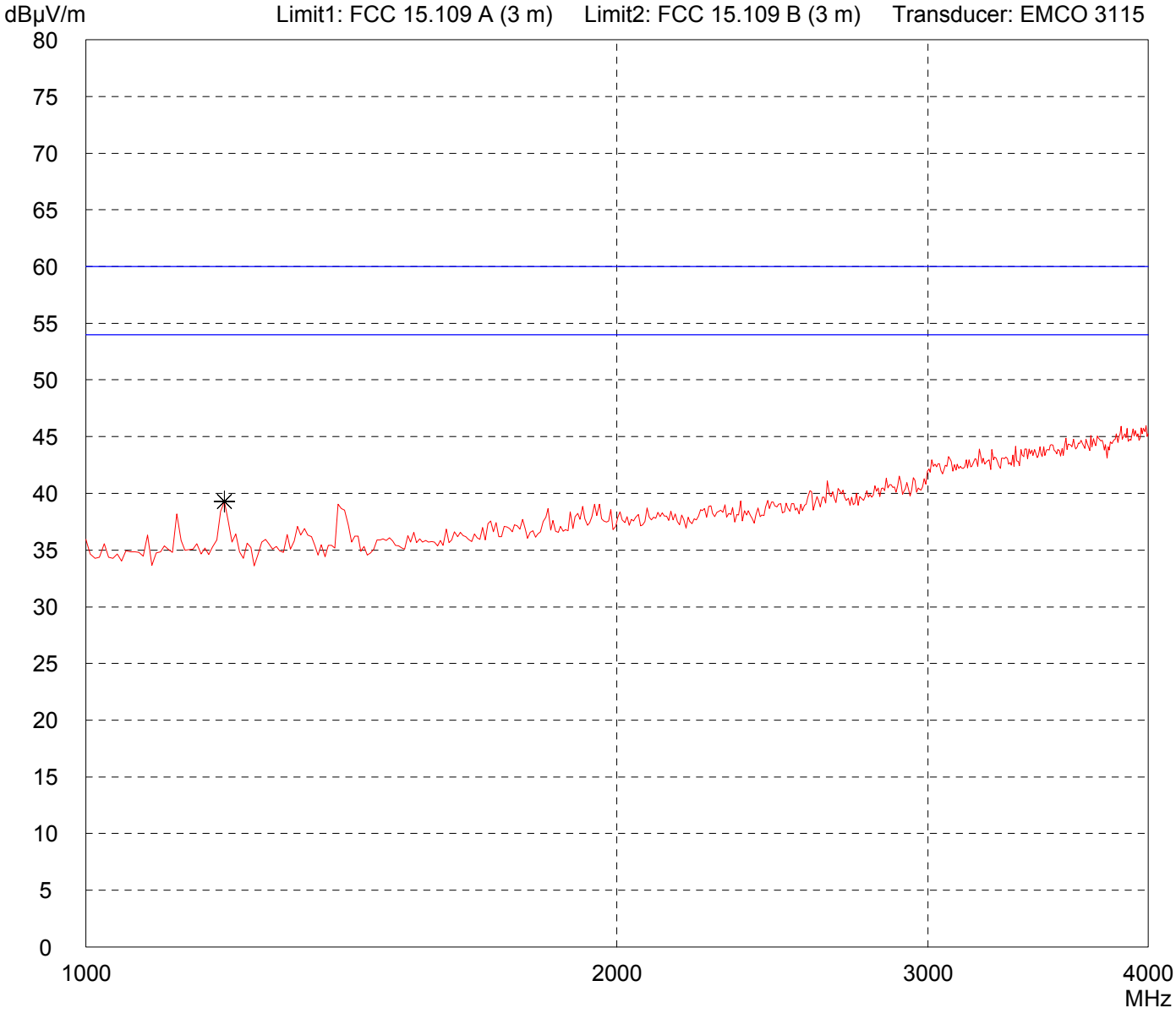


Result: Limit kept	Project file: 50941-80945

Radiated Emission Test 1 GHz - 4 GHz
acc. to FCC Part 15 Subpart B (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

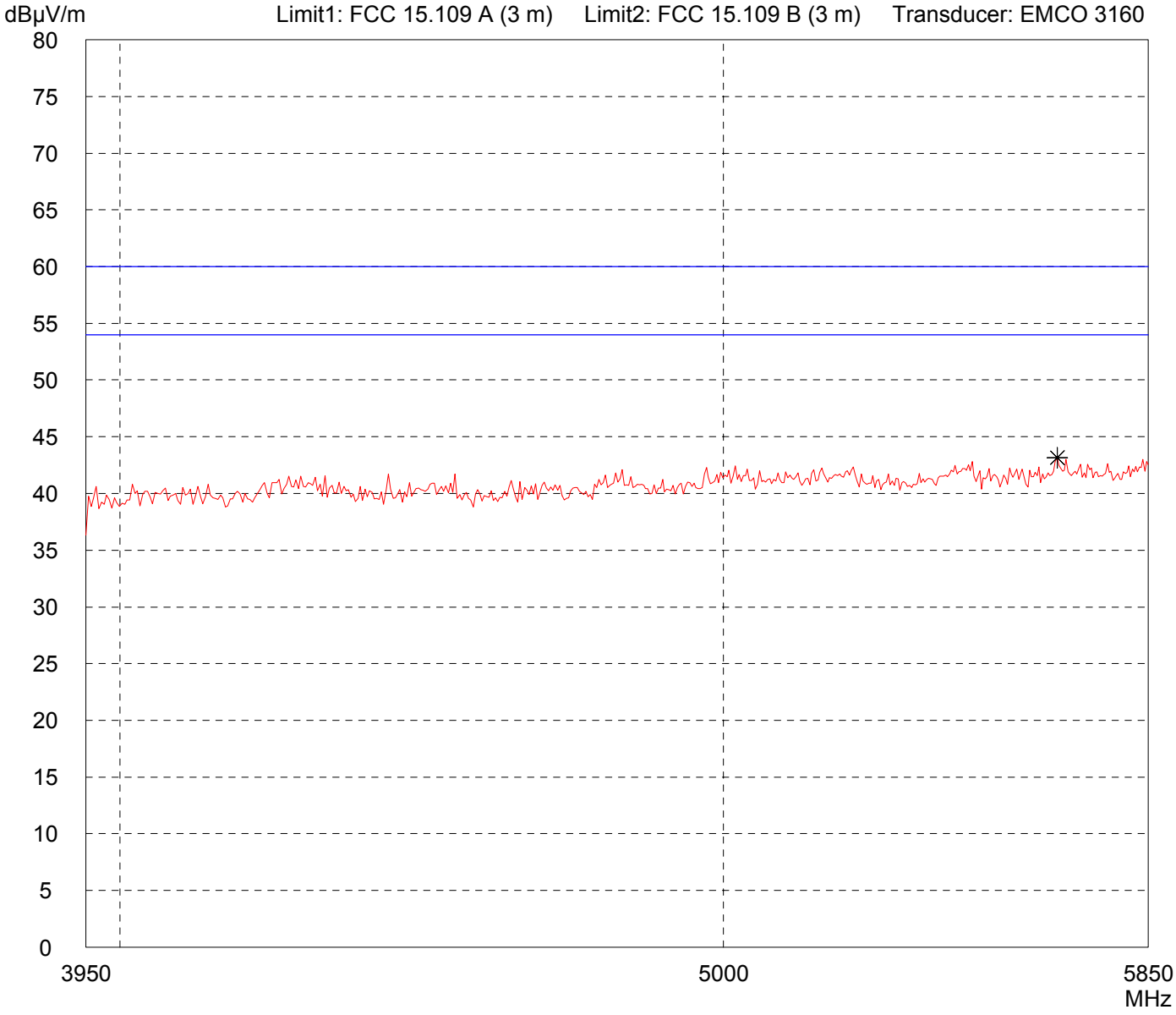


Result: Limit kept	Project file: 50941-80945

Radiated Emission Test 3.95 GHz - 5.85 GHz
acc. to FCC Part 15 Subpart B (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

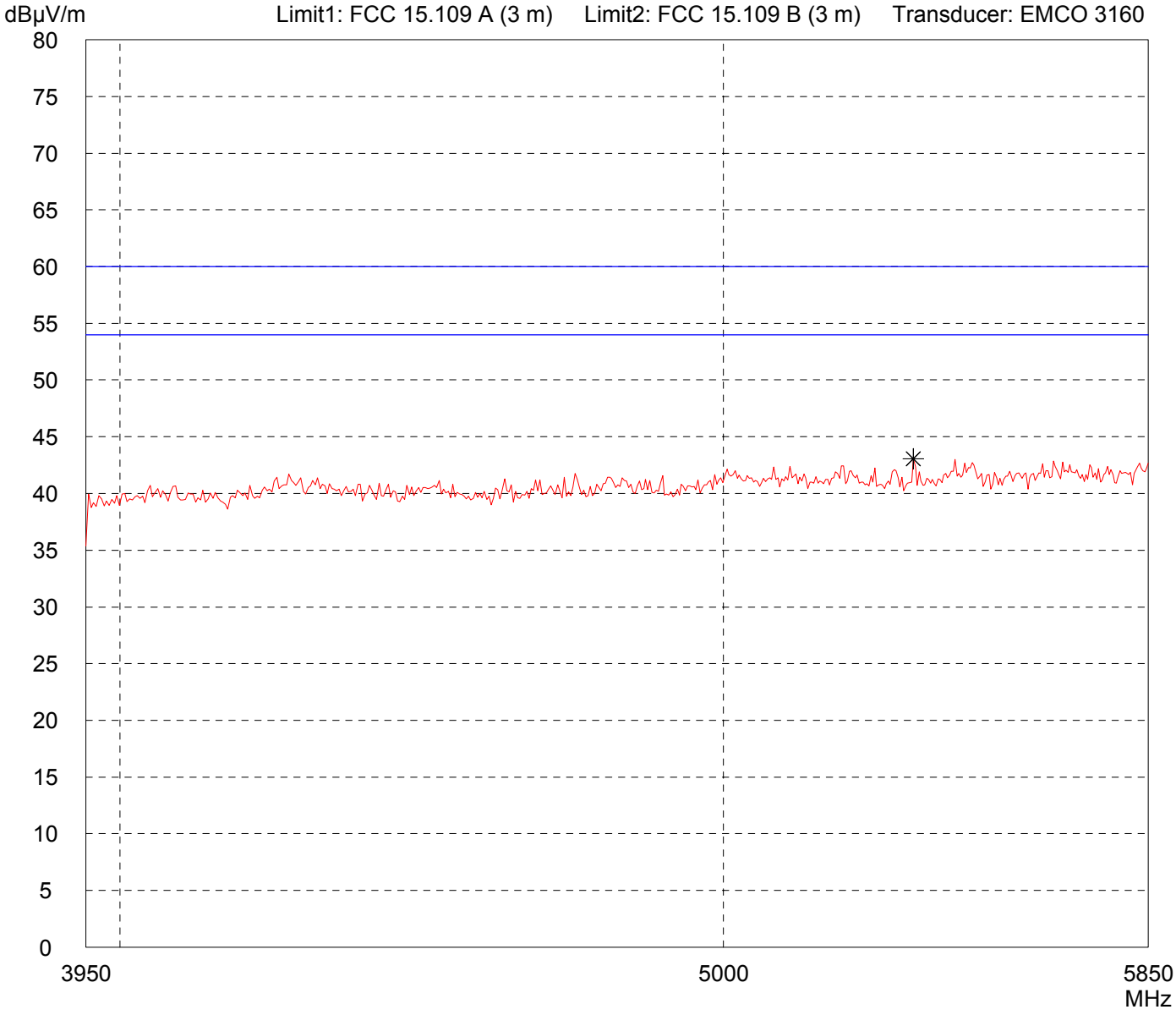
Detector: Peak	List of values: Selected by hand



Result: Limit kept	Project file: 50941-80945

Radiated Emission Test 3.95 GHz - 5.85 GHz
acc. to FCC Part 15 Subpart B (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/24/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	
Detector: Peak	List of values: Selected by hand

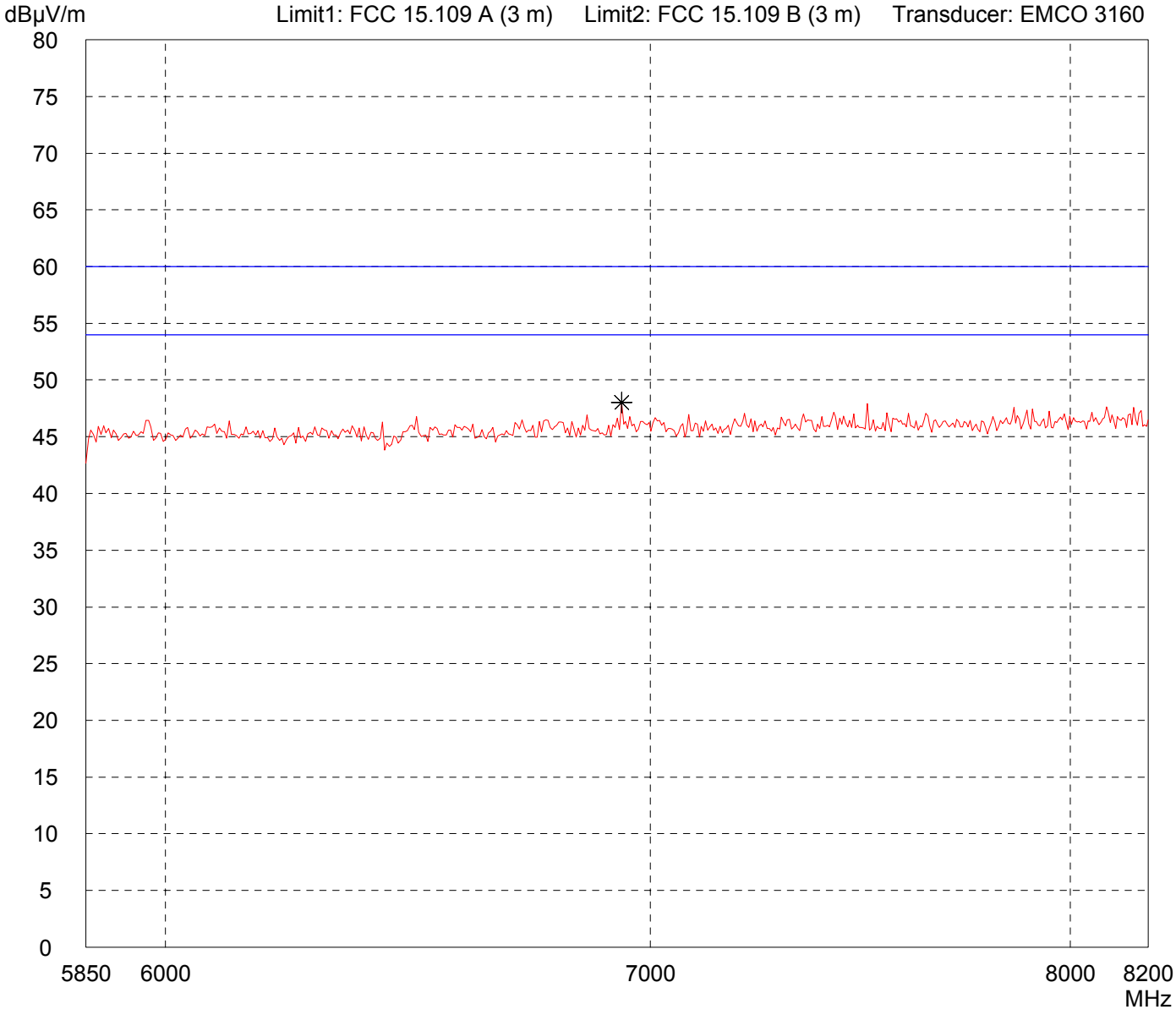


Result: Limit kept	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

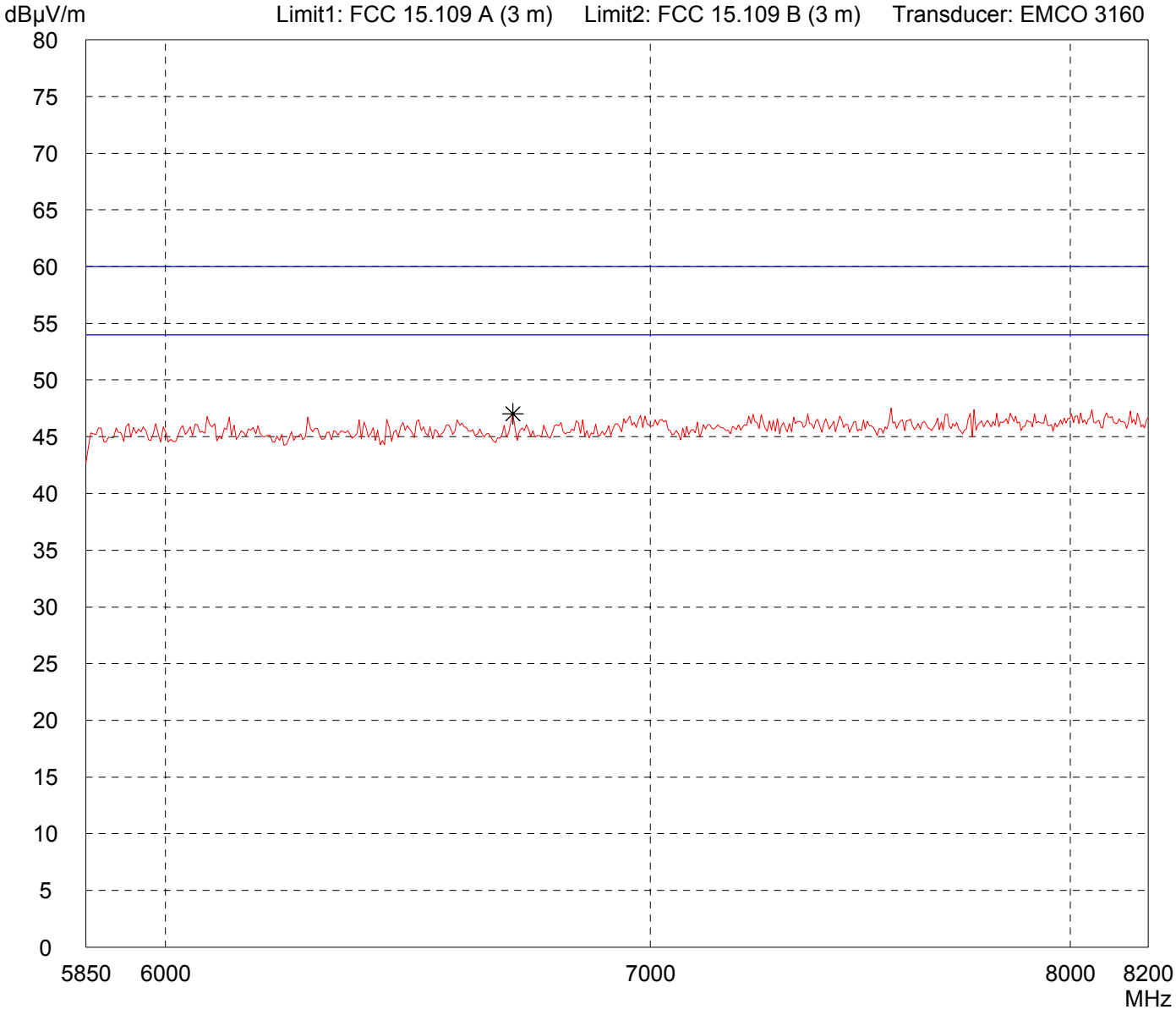


Result: Prescan	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

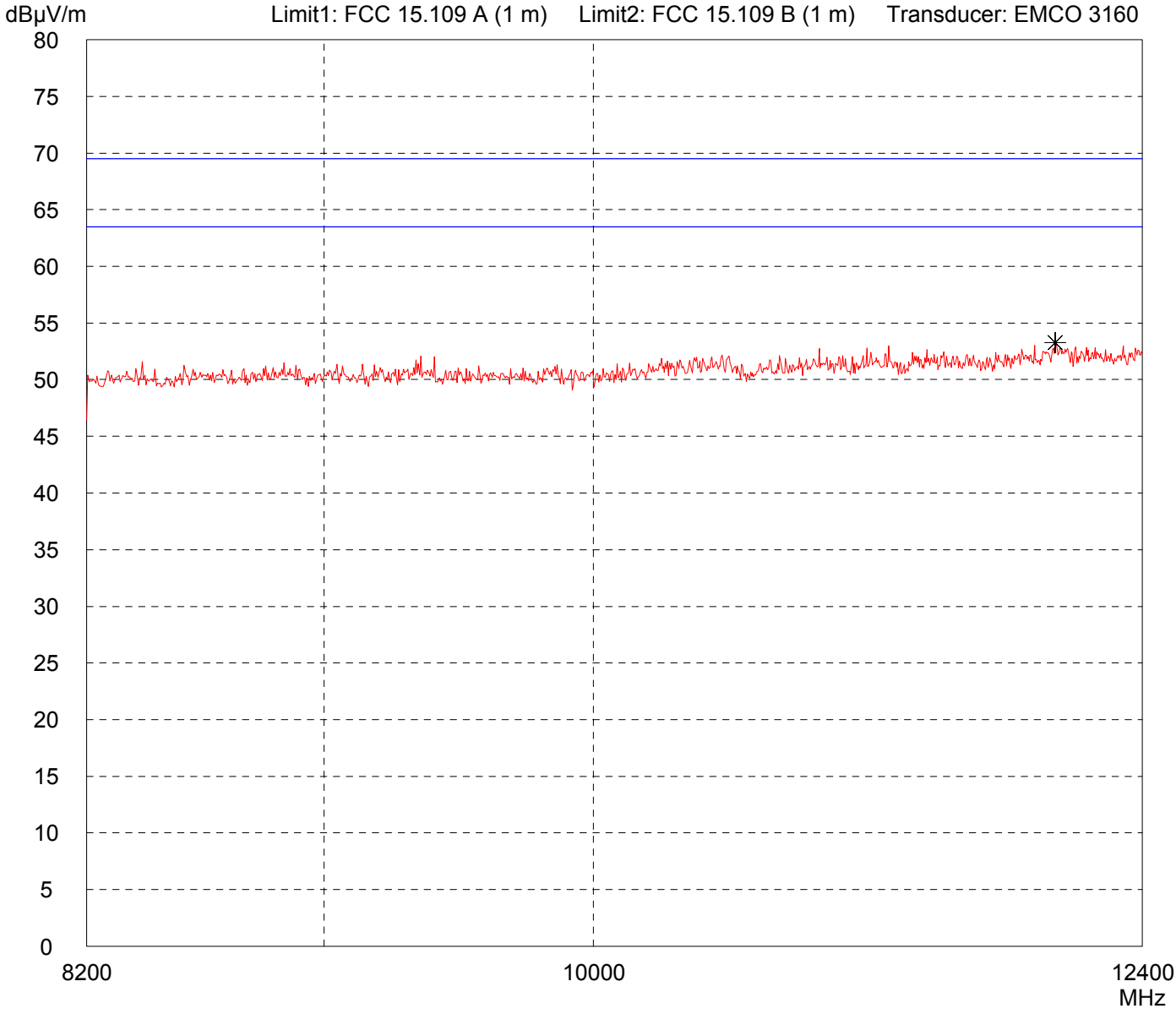


Result: Limit kept	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

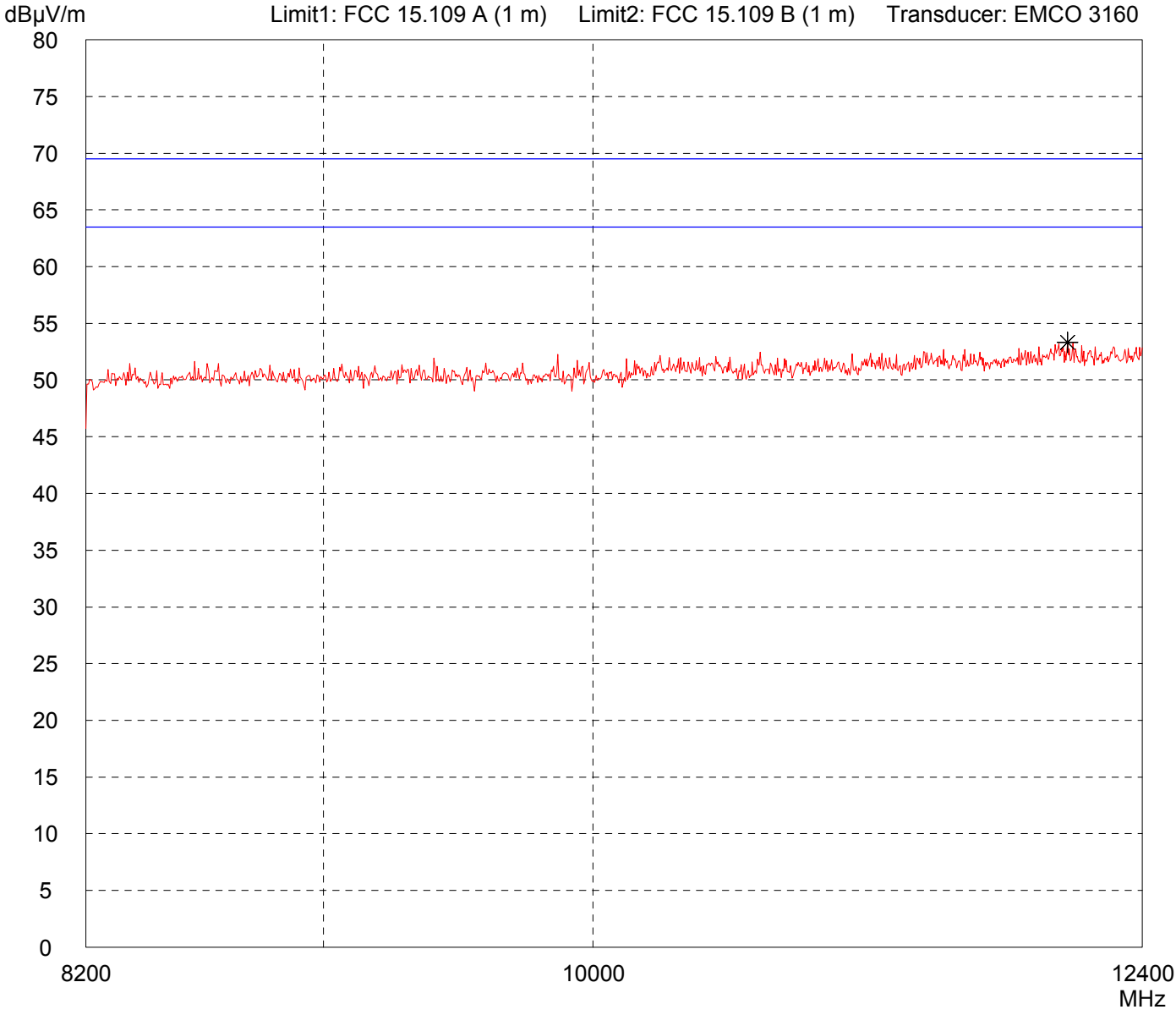


Result: Limit kept	Project file: 50941-80945

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

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

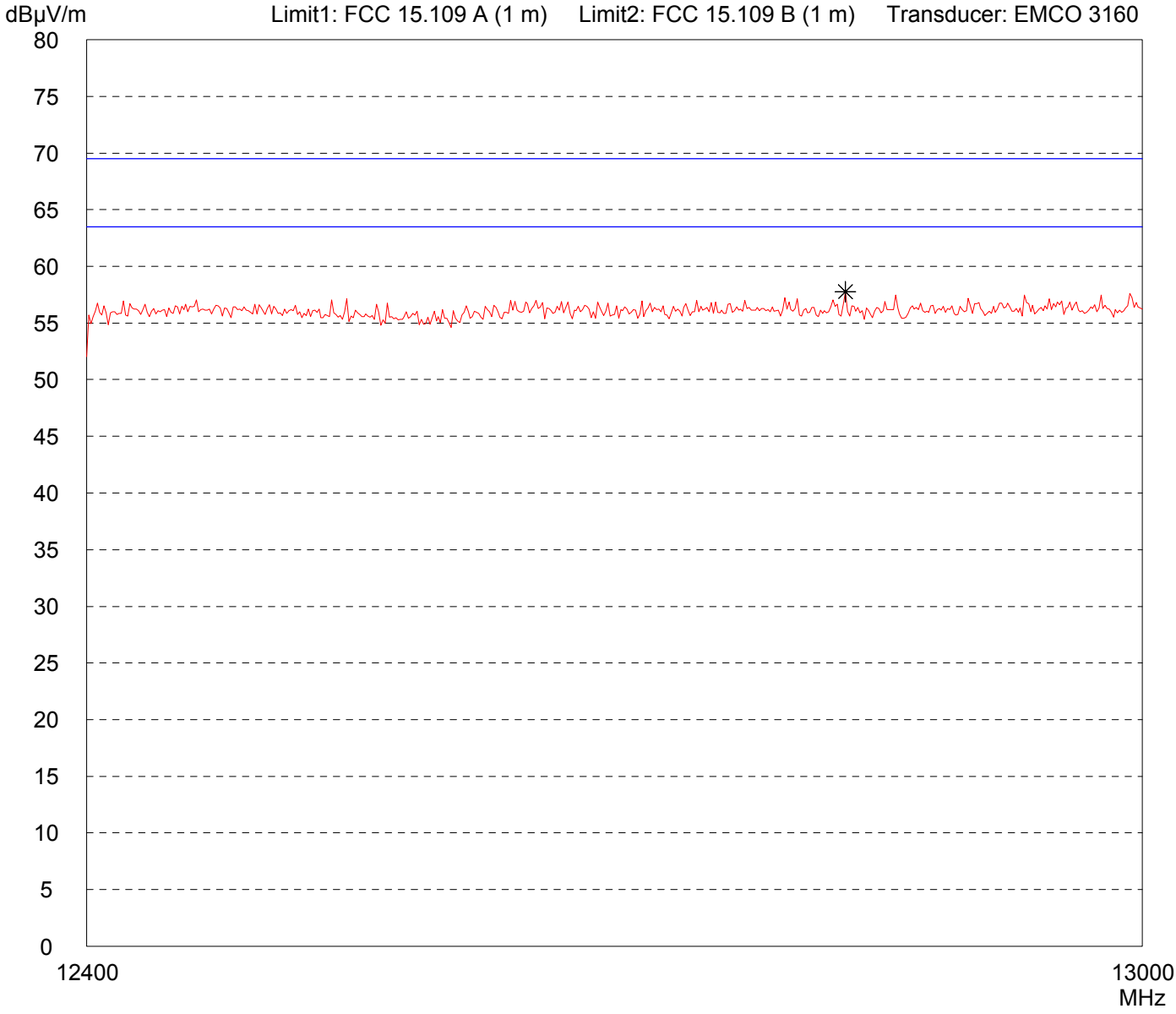


Result: Limit kept	Project file: 50941-80945

Radiated Emission Test 12.4 GHz - 13 GHz
acc. to FCC Part 15 Subpart B (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand



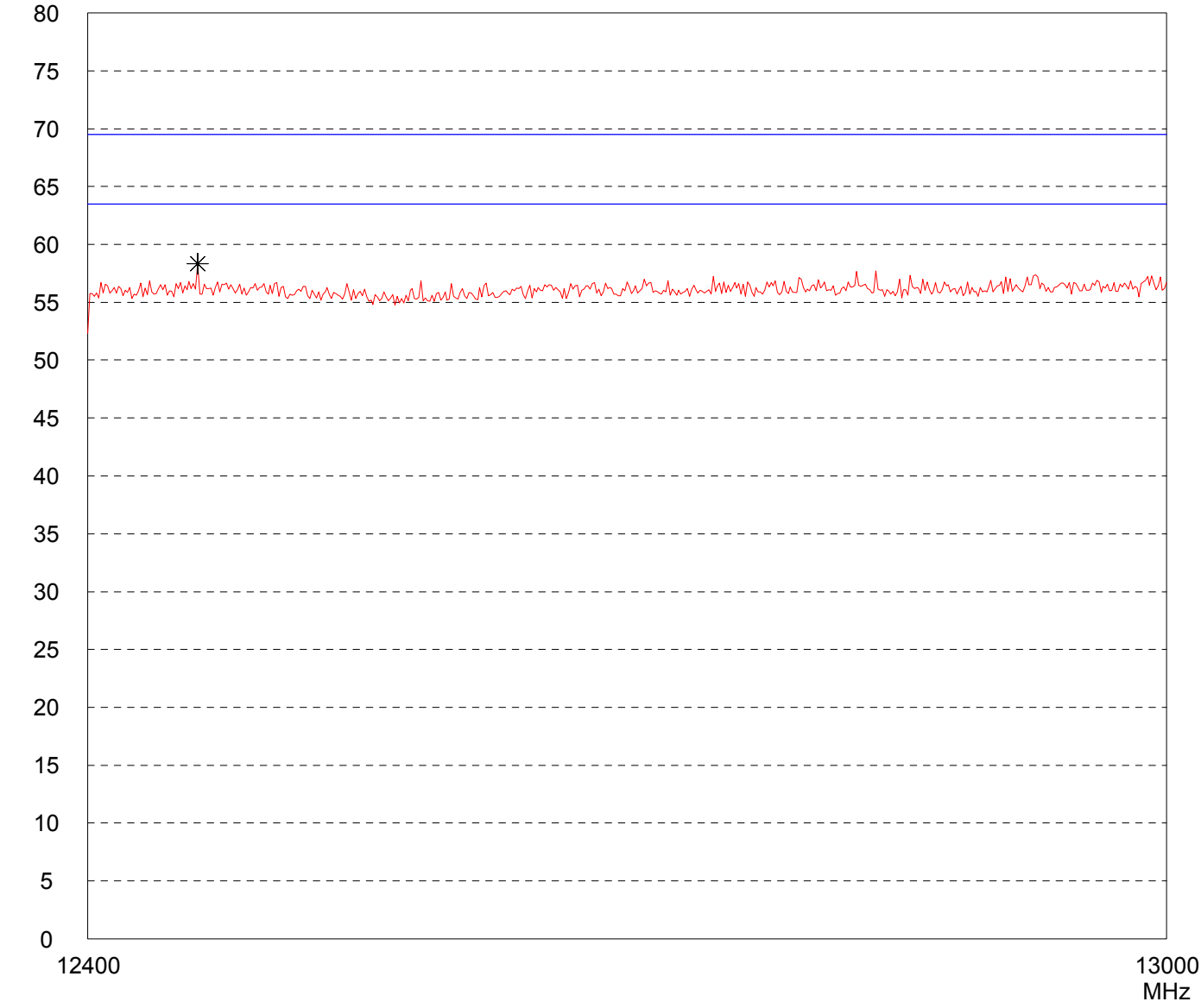
Result: Prescan	Project file: 50941-80945

Radiated Emission Test 12.4 GHz - 13 GHz
acc. to FCC Part 15 Subpart B (FAR)

Model: PC3440 FCC Version	Comment: - DC 24 V power supply (grounded) - With DELL laptop and VariService-USB - Standby / RX mode
Serial no.: 0742 3444	
Applicant: Identec Solutions Deutschland GmbH	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 09/25/2008 / Operator: M. Steindl	
Test performed: automatically / File name: default.emi	

Detector: Peak	List of values: Selected by hand

dBµV/m Limit1: FCC 15.109 A (1 m) Limit2: FCC 15.109 B (1 m) Transducer: EMCO 3160



Result: Limit kept	Project file: 50941-80945