

Straubing, 19 December 2008

TEST - REPORT

No. 56109-081425 (Edition 3)

for

KQL-AC4X90-200 (RF Transceiver Module)

1. AC4490-200M
2. AC4490-200M-485
3. AC4490LR-200M
fully tested in this test report
4. AC4490LR-200M-485
5. AC4790-200M
6. AC4790-200M-485
see test report no. 56109-061084-1
7. AC4790LR-200M
8. AC4790LR-200M-485

Applicant: AEROCOMM, Inc.

Purpose of testing: To show compliance with
FCC Code of Federal Regulations,
Part 15 Subpart C, Section 15.247
limited testing for a Class II
Permissive Change

**Reason for the Class II Permissive
Change:**

Additional antenna to be covered by the
existing certification

Note:

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

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1. Administrative Data

Test item (EUT)					
Type designation	KQL-AC4X90-200: 1. AC4490-200M 2. AC4490-200M-485 3. AC4490LR-200M fully tested in this test report 4. AC4490LR-200M-485 5. AC4790-200M 6. AC4790-200M-485 see test report no. 56109-061084-1 7. AC4790LR-200M 8. AC4790LR-200M-485				
Serial number(s):	001				
Type of equipment:	RF Transceiver				
Parts/accessories:	---				
FCC-ID:	KQL-4X90200				
Technical data					
Frequency range	902 - 928 MHz				
Operational frequencies	FHSS				
Statement:	The power was set to the maximum possible				
Type of modulation	FSK				
Pulse frequency	N/A				
Pulse width	N/A				
Antennae covered by this report:	<u>Part #</u> ANT-916-SP2	<u>Manufacturer</u> <u>Antenna</u> <u>Factor</u>	<u>Type</u> Mono- pole	<u>Gain</u> <u>0 dB</u>	<u>Coupling</u> N/A
Power supply	3.3 - 5.5 V DC				

Applicant: (full address)	AEROCOMM, Inc. Thompson Avenue Lenexa, KS 66219, USA
Contract identification:	---
Contact person:	Daniel Waters
Manufacturer:	Applicant
Application details	
Receipt of EUT:	10 November 2008
Date of test:	November 2008
Note:	---
Responsible for testing:	Johann Roidt
Responsible for test report:	Johann Roidt

2. Identification of Test Laboratory

DETAILS OF THE TEST LABORATORY

COMPANY NAME:	Senton GmbH EMI/EMC Test Center
ADDRESS:	Aeussere Fruehlingsstrasse 45 D-94315 Straubing Germany
LABORATORY ACCREDITATION:	DAR-Registration No. DAT-P-171/94-02
FCC TEST SITE LISTING	90926
INDUSTRY CANADA TEST SITE REGISTRATION	IC 3050
NAME FOR CONTACT PURPOSES:	Mr. Johann Roidt
TELEPHONE: (+49) (0)9421 5522-0	FAX: (+49) (0)9421 5522-99

PERSONNEL INVOLVED IN THIS TEST REPORT

LABORATORY MANAGER:



Johann Roidt

RESPONSIBLE FOR TESTING:

Mr. Johann Roidt

RESPONSIBLE FOR TEST REPORT:

Mr. Johann Roidt

SUMMARY OF TEST RESULTS

The tested sample complies with the requirements set forth in the
Code of Regulations Part 15 Subpart C, Section 15.247
of the Federal Communication Commission (FCC).

3. Operation Mode of EUT

Transmitter operating continuously,
full TX tests were performed on lowest, middle and highest RF channel. RX mode was
tested on the middle channel.

Low channel:	902.20 MHz
Middle channel:	915.30 MHz
Highest Channel:	927.40 MHz

4. Configuration

Configuration of the EUT

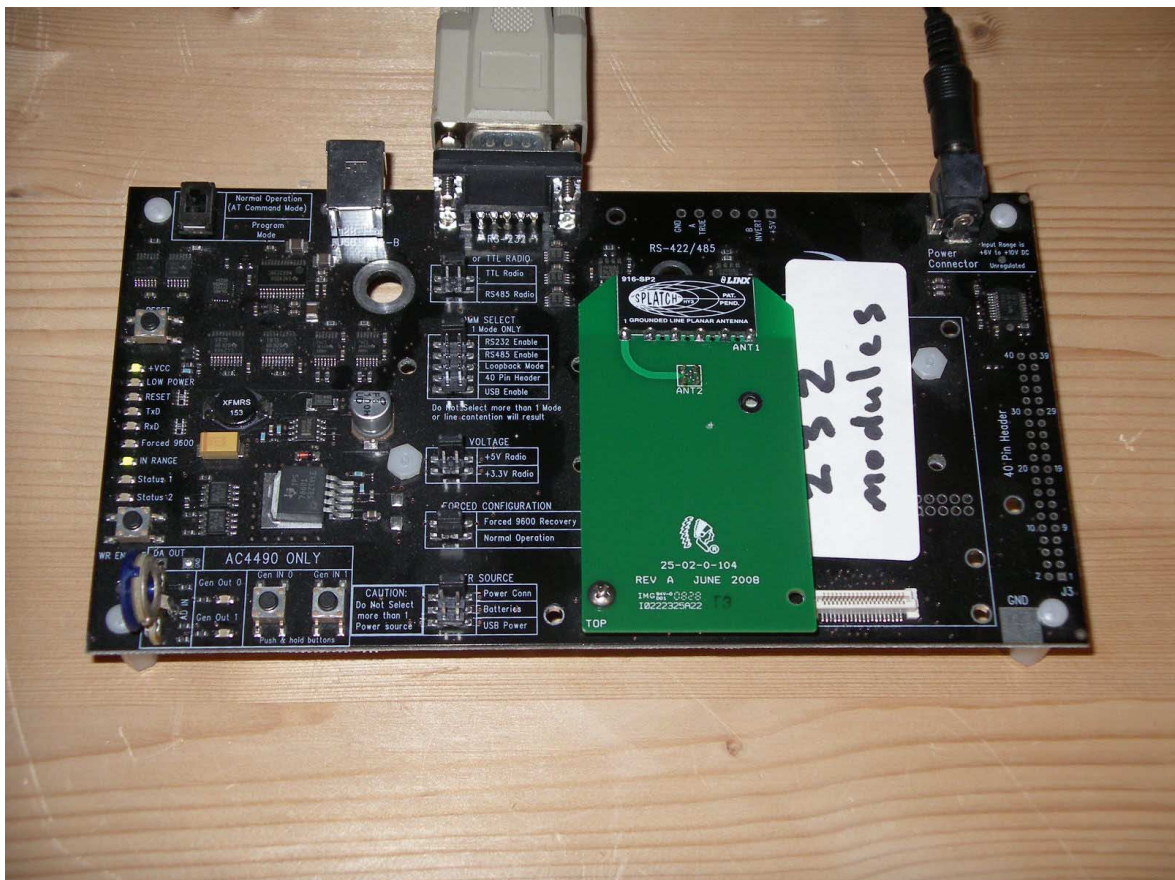
A full test setup was supplied by the applicant

Cables connected to the EUT

Not applicable

Peripheral devices connected to the EUT

- AEROCOMM Test Board
- AC Adapter
- Notebook PC Dell Latitude D620



5. Measuring Methods

5.1. Maximum Transmitter Power

5.1.1. Conducted Maximum Transmitter Power

Rules and Specifications:	Section 15.247
Guide:	ANSI C63.4

Measurement Procedure:
A spectrum analyzer / EMI test receiver is connected to the output of the transmitter power amplifier (conducted measurement) via dummy load while EUT was operating in transmit mode using the assigned frequency. The trace mode of the spectrum analyzer was set to max hold with: RBW = 100 kHz, VBW = 100 kHz, span = 1 MHz, sweep = 20 ms (auto mode)

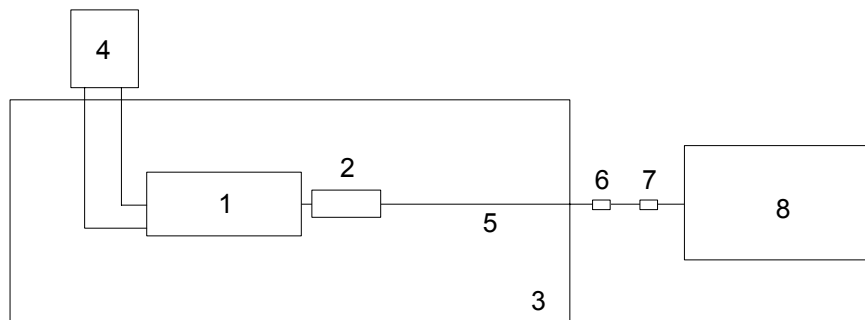


Figure 1: Measurement setup for testing on antenna connector

Test instruments used:

No.	Type	Model	Serial Number	Manufacturer
01	Spectrum Analyzer	FSP 30	100063	Rohde & Schwarz
08	Power Meter	NRVS	836856/015	Rohde & Schwarz
09	Power Sensor	NRV-Z52	837901/030	Rohde & Schwarz
18	Attenuator 20 dB	4776-20	9503	Narda
19	Attenuator 10 dB	4776-10	9412	Narda

5.1.2. Radiated Maximum Transmitter Power

Radiated Maximum Transmitter Power was measured with detector-function of the spectrum analyzer set to positive peak and trace mode max hold:
RBW = 100 kHz, VBW = 100 kHz, span = 1 MHz, sweep = 15 s

For measurement setup and procedure see section 5.2

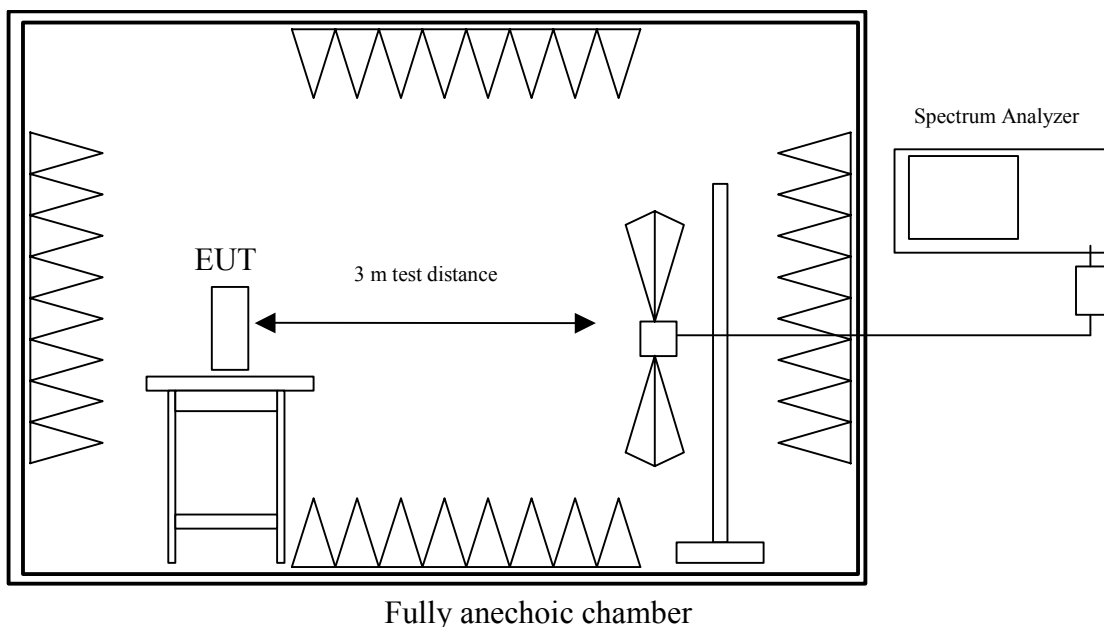
5.2. Radiated Emissions 30 MHz – 1 GHz

Rules and Specifications:	Section 15.247
Guide:	ANSI C63.4

Measurement Procedure:

Radiated emissions are measured over the frequency range from 30 MHz to 1 GHz.

Measurements were 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 bandwidth set to 100 kHz. All tests were performed at a test-distance of 3 meters. 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



Test instruments used:

No.	Type	Model	Serial Number	Manufacturer
01	Spectrum Analyzer	FSP 30	100063	Rohde & Schwarz
113	Preamplifier	CPA9231A	3393	Schaffner
141	Trilog broadband antenna	VULB 9163	9163-188	Schwarzbeck
003	Fully anechoic room	No. 2	1452	Albatross Projects

5.3. Radiated Emission > 1 GHz

Rules and Specifications:	Section 15.247
Guide:	ANSI C63.4

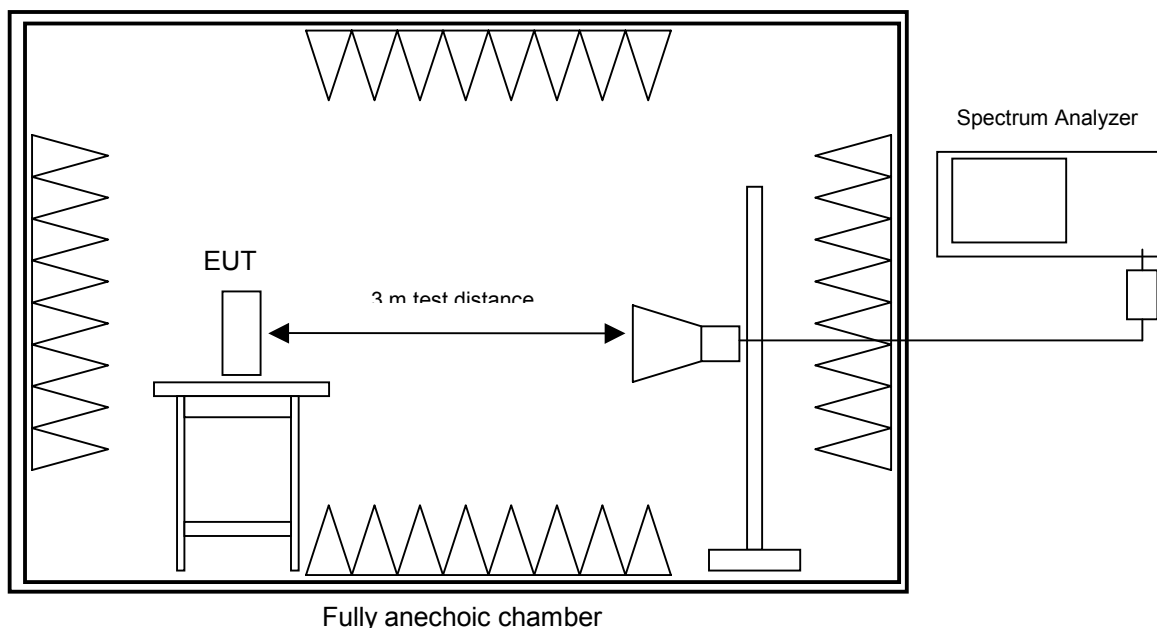
Measurement Procedure:

Radiated emissions are measured in the frequency range 1 GHz to 25 GHz. Resolution and video bandwidth of the spectrum analyzer are set to 1 MHz. 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. Additional measurements are performed at critical frequencies with reduced span.

EUT is rotated all around and receiving antenna is raised and lowered to find the maximum levels of emission. The cables and equipment are placed and moved within the range of position likely to find their maximum emissions.

All tests are performed in a fully-anechoic chamber with a test-distance of 3 meters.

If required preamplifiers are used for the whole frequency range. Special care is taken to avoid overload in transmit mode (using appropriate attenuators and filters if necessary).

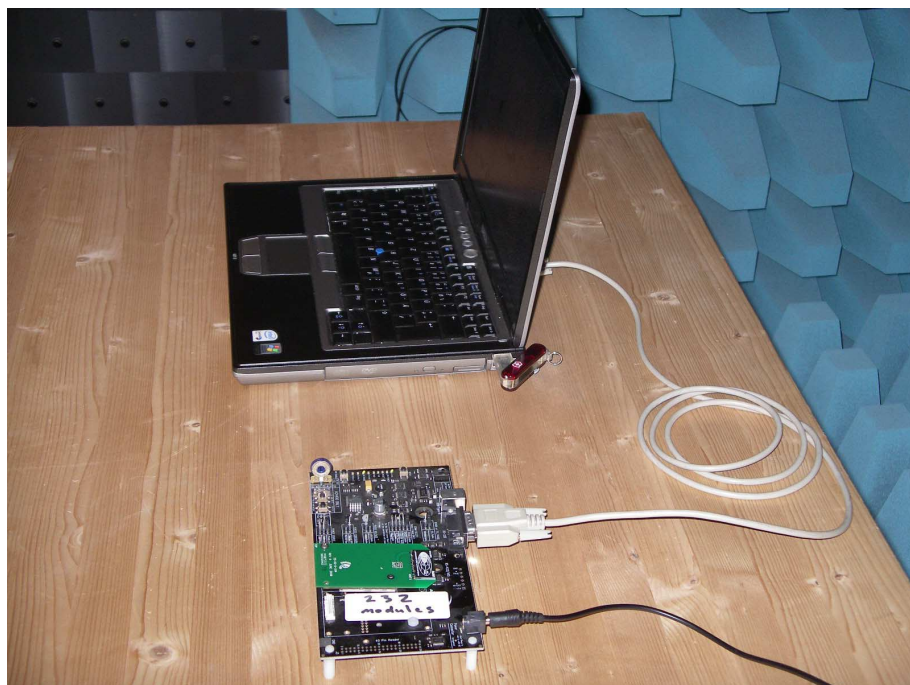
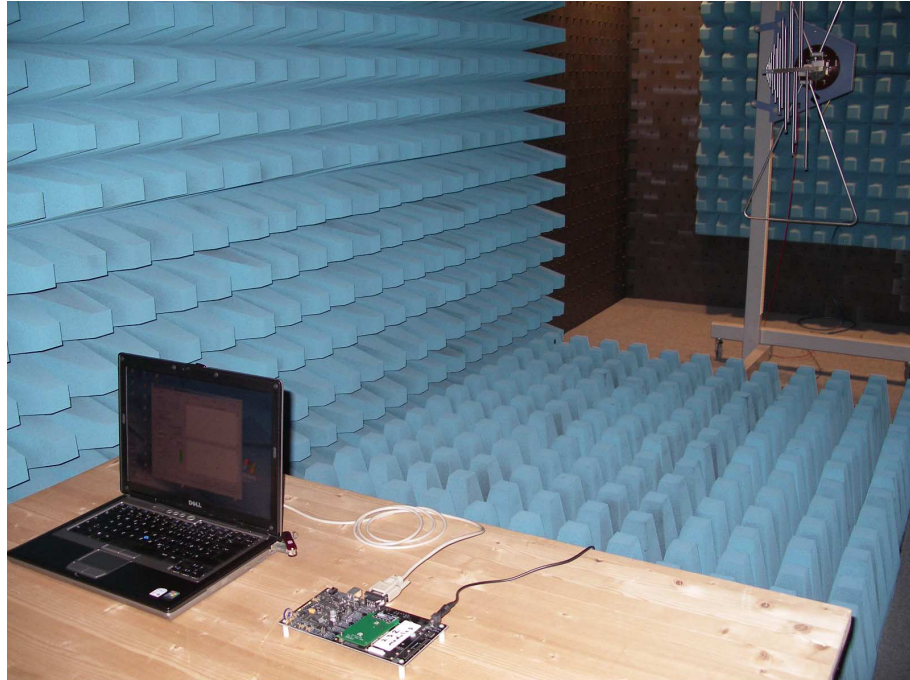


Test instruments used:

No.	Type	Model	Serial Number	Manufacturer
01	Spectrum Analyzer	FSP 30	100063	Rohde & Schwarz
143	Log. periodic antenna	3147	9112-1054	EMCO
145	Horn antenna	3115	9508-4553	EMCO
146	Horn antenna set	3160-03/-09	9112-1003	EMCO
114	Preamplifier 1-8 GHz	AFS3-00100800-32-LN	847743	Miteq
115	Preamplifier 8-18 GHz	ACO/180-3530	32641	CTT
003	Fully anechoic room	No. 2	1452	Albatross Projects

6. Photographs Taken During Testing

Test setup for radiated emission measurement 30 MHz – 25 GHz (fully anechoic room)



7. List of Measurements

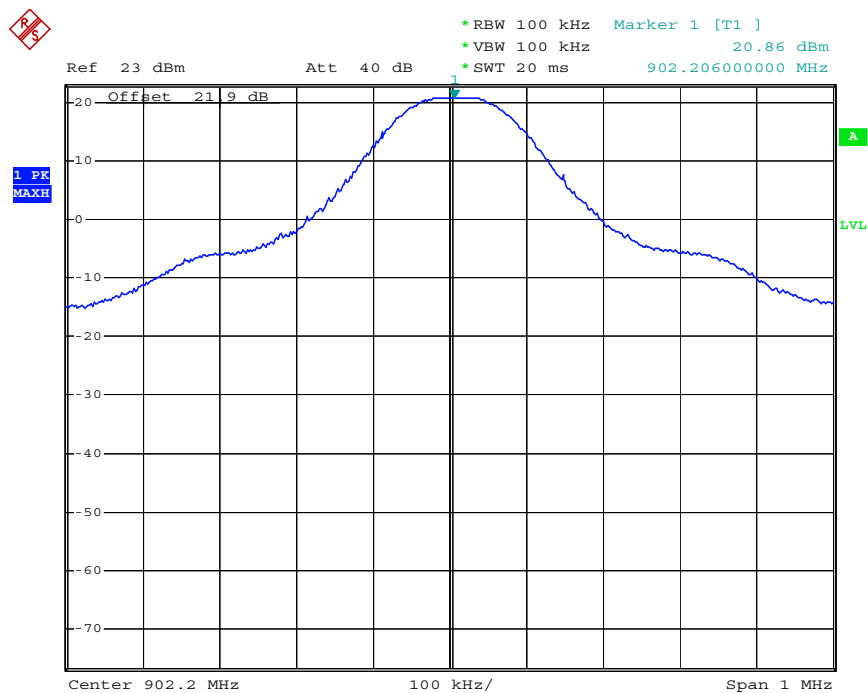
FCC Part 15 Subpart C			
Section(s):	Test	Page(s)	Result
	Transmitter:		
15.205	Restricted Bands	---	Pass
15.247 (a) (1)	Channel Bandwidth	17	See test report 56109-061084
15.247 (a) (1)	Hopping channel separation	19	See test report 56109-061084
15.247 (a) (1) (i)	Number of Hopping Frequencies used	21	See test report 56109-061084
15.247 (a) (1) (i)	Dwell Time of each frequency within a 10 Second Period of Time	23	See test report 56109-061084
15.247 (b) (2)	Maximum Peak Output Power	25	Pass
15.247 (c)	Spurious emissions - conducted	27	See test report 56109-061084
15.205 15.209	Radiated emissions 9 kHz to 30 MHz	---	See test report 56109-061084
15.247 (c) 15.209	Spurious emissions - radiated	31	Pass
15.247 (g)	Compliance with applicable requirements for FHSS	---	
15.247 (h)	Limitation on avoidance on hopping in occupied channel	---	
15.203	Antenna Requirement	33	Pass
2.1093	RF Exposure Requirement	34	Pass
15.207	Conducted AC Powerline Emissions	35	N/A
	Receiver		
15.111	Spurious emissions on antenna port	---	N/A
15.109	Radiated Emissions	36	Pass

Carrier Power Measurement

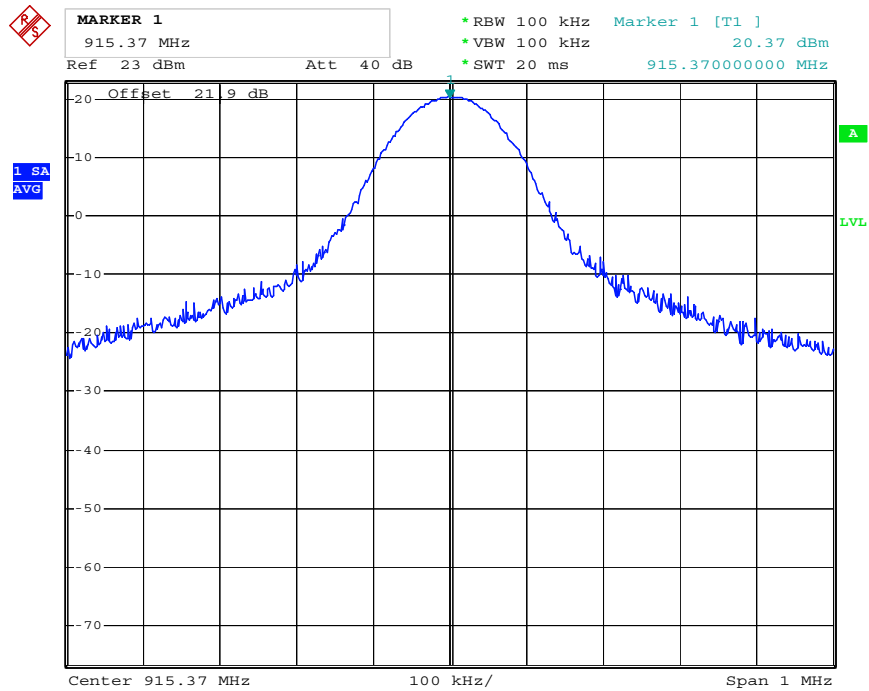
Rules and Specifications:	15.247 (b) (2)
Guide:	ANSI C63.4
Limit:	For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels;

Test Site:	Radio Lab.
Distance:	Conducted Measurement
Date of Test:	03 January 2007

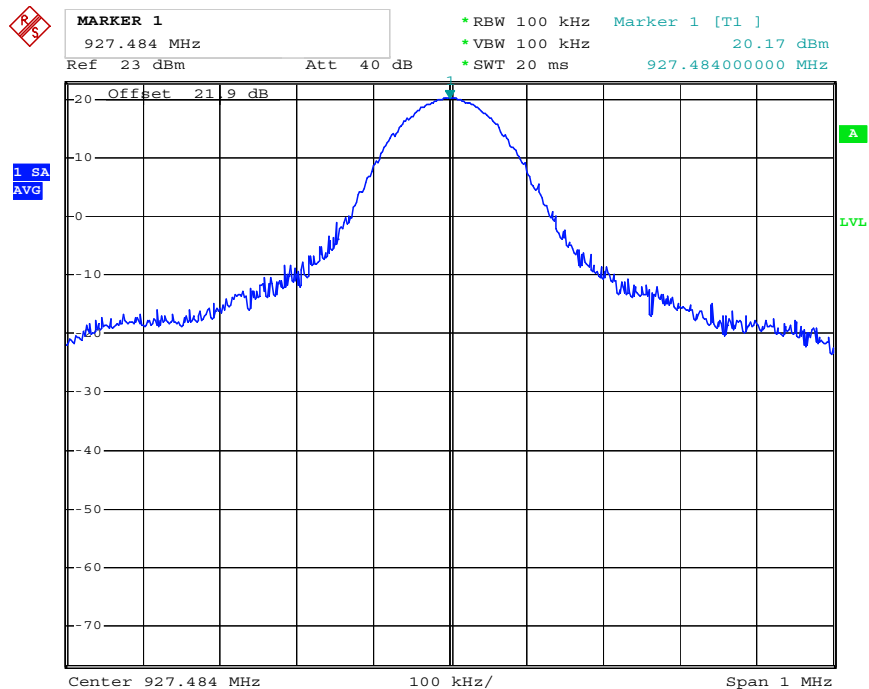
Frequency	Output Power in dBm	Output Power in W	Standard	Result
Low (902.2 MHz)	20.86		≤1.00W	Pass
Middle 915,3 MHz	20.37		≤1.00W	Pass
High 927.4 MHz	20.17		≤1.00W	Pass



Date: 3.JAN.2007 11:17:19



Date: 3.JAN.2007 11:18:51



Date: 3.JAN.2007 11:20:03

Spurious Emissions

Rules and Specifications:	15.247 (c)
Guide:	ANSI C63.4
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

Test Site:	Open Area Test Site (< 1GHz), Fully anechoic room (>1 GHz)
Distance:	Radiated Measurement
Date of Test:	03 January 2007

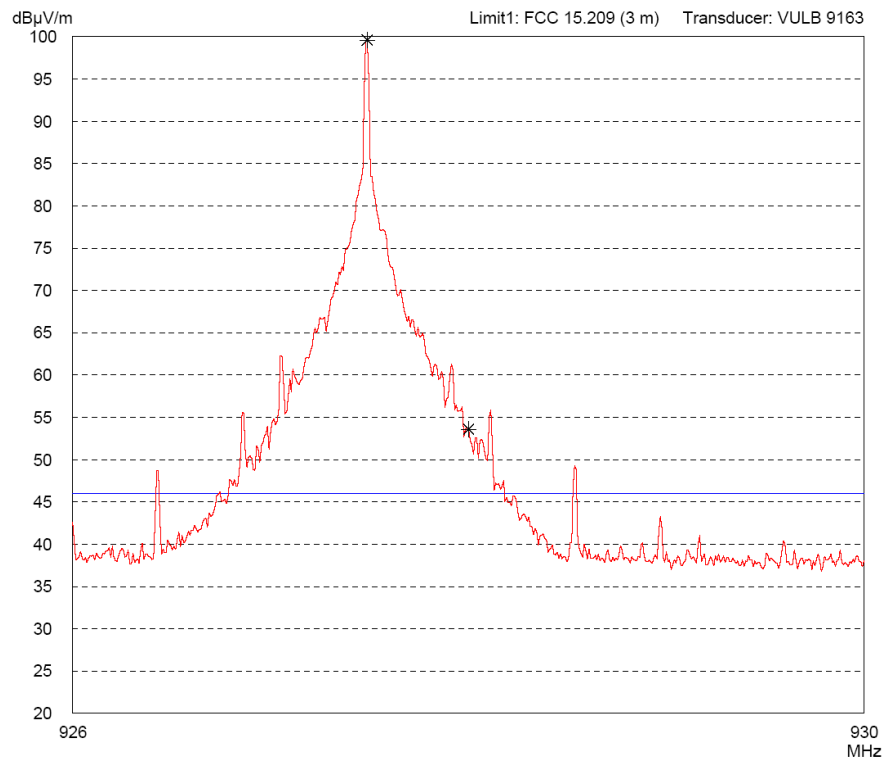
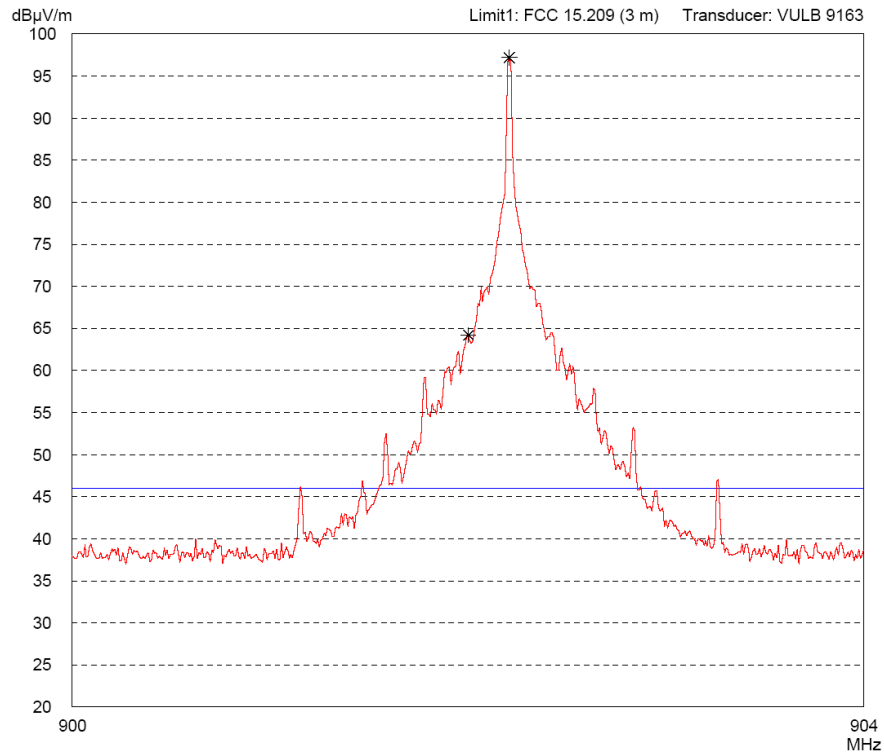
Frequency (MHz)	Antenna Polarisation	Meter Reading (dBµV)	Antenna Correction (dB)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
902.20	Horizontal	79.72	24.19	103.91	Fundamental	---
915.40	Vertical	79.55	24.30	103.85	Fundamental	---
927.50	Vertical	78.86	24.41	103.27	Fundamental	---
Band Edge Compliance						
902.00	Vertical	20.03	24.19	44.22	83.91	N.R.B
928.00	Vertical	29.14	24.41	53.55	83.27	N.R.B
Low Channel						
677.96	Horizontal	16.47	21.39	37.86	46.00	9.14
790.48	Vertical	24.08	22.79	46.87	83.91	N.R.B.
846.74	Vertical	18.55	23.52	42.07	46.00	3.93
1804.0	Vertical	21.96*	31.65	53.61	54.00	0.39
2710.0	Vertical	10.70*	37.30	48.00	54.00	6.00
4512.4	Vertical	14.45*	33.99	48.44	54.00	5.56
5413.0	Vertical	-1.25*	34.85	33.60	54.00	20.40
6315.3	Vertical	1.01*	38.19	39.20	54.00	14.80
7217.7	Vertical	1.56*	38.95	40.51	54.00	13.49
8124.8	Vertical	12.37*	39.70	52.07	54.00	1.93

Frequency (MHz)	Antenna Polarisation	Meter Reading (dBµV)	Antenna Correction (dB)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
9023.2	Vertical	-7.08*	43.72	36.64	54.00	17.36
9922.0	Vertical	-4.03*	44.40	40.37	54.00	13.63
Middle Channel						
687.66	Vertical	20.55	21.44	41.99	83.85	N.R.B.
802.12	Vertical	24.49	22.95	47.44	83.85	N.R.B.
858.38	Vertical	20.63	23.67	44.30	83.85	N.R.B.
1828.0	Vertical	19.41*	31.31	50.72	54.00	3.28
2746.0	Vertical	7.70*	37.43	45.13	54.00	8.87
4577.0	Vertical	7.71*	34.05	41.76	54.00	12.24
6409.3	Vertical	2.73*	38.27	41.00	54.00	13.00
7325.8	Vertical	4.14*	39.07	43.21	54.00	10.79
8233.6	Vertical	6.70*	43.17	49.87	54.00	4.13
High Channel						
697.36	Vertical	23.90	21.49	45.39	83.27	N.R.B.
755.56	Vertical	20.04	22.31	42.35	83.27	N.R.B.
811.82	Vertical	30.91	23.08	53.99	83.27	N.R.B.
1852.0	Vertical	13.8*	30.98	44.78	54.00	9.22
2782.0	Vertical	7.58*	37.55	45.13	54.00	8.87
4637.8	Vertical	11.28*	34.11	45.39	54.00	8.61
5568.8	Vertical	11.09*	35.00	46.09	54.00	7.91
6493.9	Vertical	9.99*	38.34	48.33	54.00	5.67
7419.8	Vertical	13.59*	39.17	52.76	54.00	1.34
8342.8	Vertical	8.86*	43.25	52.11	54.00	1.89

N.R.B. = Not in a restricted band

* Reading includes a duty cycle correction factor of -7.74 dB

Band Edge Compliance Plots



Antenna connector requirement

Rules and Specifications:	15.203
Guide:	---
Limit:	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section.
Test Result	Pass
	Integated antenna, see picture below



RF Exposure

Rules and Specifications:	15.247 (b) (4)
Guide:	OET Bulletin 65, Edition 97-01
Limit:	According to §15.247(b)(4) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
30 - 1500	---	---	f/1500 = 0.61 mW/cm ² @ 915 MHz	30

f = frequency in MHz

MPE Prediction of MPE according to equation from page 19 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where: S = power density

P = power input to 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 at antenna input terminal: **20.86 dBm = 121.9 mW**

Prediction distance: **20 cm**

Antenna gain: (**ANT-916-SP2**) **0.0 dBi = 1.00 (numerical gain)**

Power density at 20 cm: **0.024 mW/cm²**

Test Result:	Pass
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Spurious Radiation Measurement

Rules and Specifications:	15.109,										
Guide:	ANSI C63.4										
Limit:	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated at least 50 dB below the level of the fundamental or to the general radiated emission limits below, whichever is the lesser attenuation										
	<table> <tr> <th>Frequency of Emission (MHz)</th><th>Field Strength (microvolts/meter)</th></tr> <tr> <td>30 - 88</td><td>100</td></tr> <tr> <td>88 - 216</td><td>150</td></tr> <tr> <td>216 - 960</td><td>200</td></tr> <tr> <td>Above 960</td><td>500</td></tr> </table>	Frequency of Emission (MHz)	Field Strength (microvolts/meter)	30 - 88	100	88 - 216	150	216 - 960	200	Above 960	500
Frequency of Emission (MHz)	Field Strength (microvolts/meter)										
30 - 88	100										
88 - 216	150										
216 - 960	200										
Above 960	500										

Tested Frequency:	RX Mode, middle RF Channel
Test Site:	Open Area Test Site (< 1 GHz), Fully anechoic chamber (> 1 GHz)
Distance:	3 Meter

Frequency (MHz)	Detector	Antenna Polarization	Analyzer Reading (dBμV)	Correction Factor (dB/m)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1888,000	Peak	Hor	7,87	31,71	39,58	54,00	14,4

*** = All emissions showed more than 20 dB margin to the limit

Sample calculation of erp values:

$$\text{Field Strength (dB}\mu\text{V/m)} = \text{Analyzer Reading (dB}\mu\text{V)} + \text{Correction Factor (dB/m)}$$

8. 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, 2007
☒	CFR 47 Part 15	Code of Federal Regulations Part 15 (Radio Frequency Devices) of the Federal Communication Commission (FCC)	September 20, 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 Equipmment, 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-Exempt Radiocommunication 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

Revision History

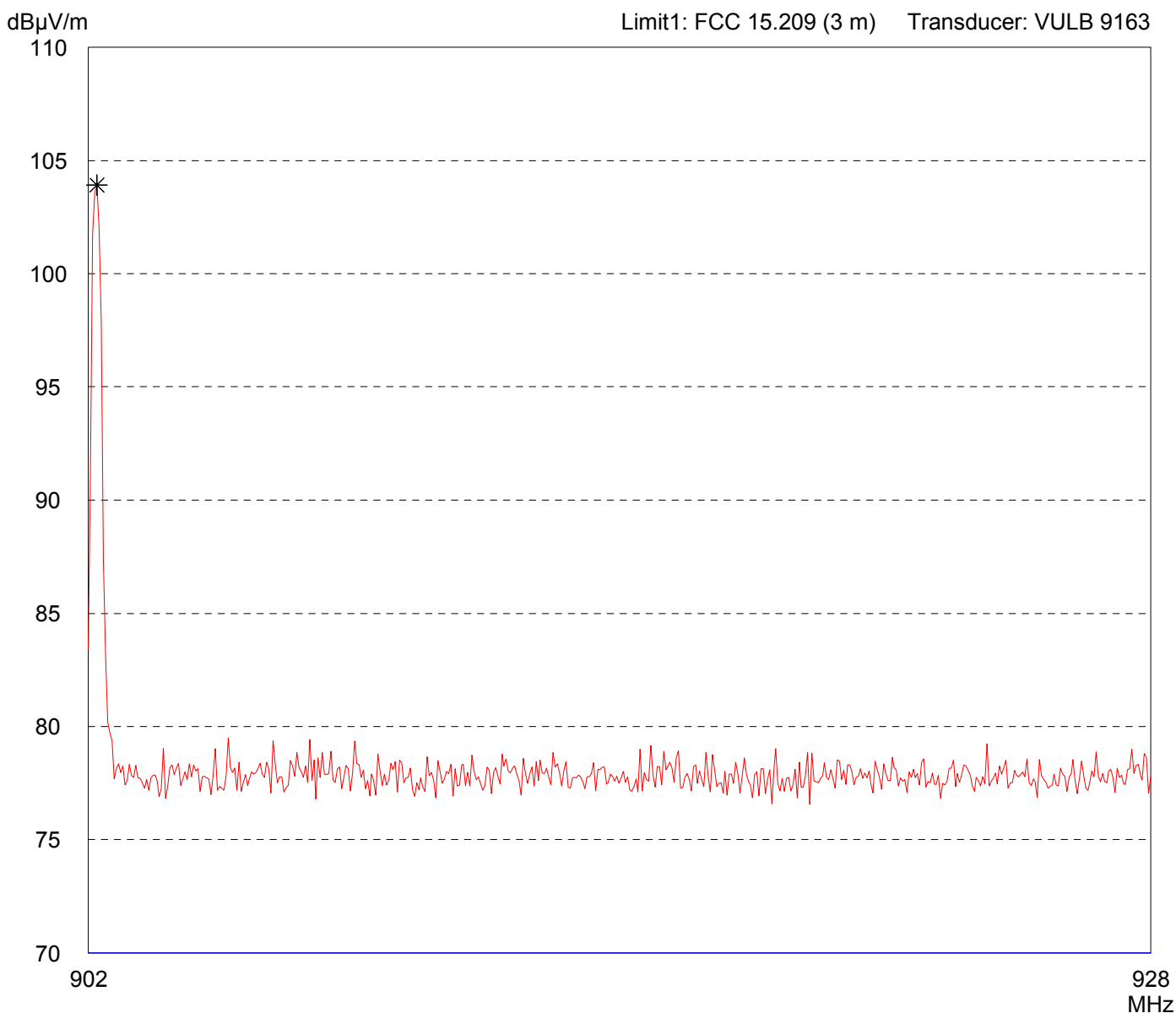
Edition	Date	Issued by	Note
01	05.12.2008	J. Roidt	First edition
02	15.12.2008	C. Jäger	Edition 2 Additional model variants included (page 1 and 3)
03	19.12.2008	C. Jäger	Edition 3 Modification required for FCC-/IC Certification - MPE corrected (Page 21) - Referenced Regulations updated (Page 23)

Charts taken during testing

Radiated Emission Test 902 MHz - 928 MHz acc. to FCC Part 15 Subpart C (FAR)

Model: AC4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 902 MHz
Serial no.:	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 11/12/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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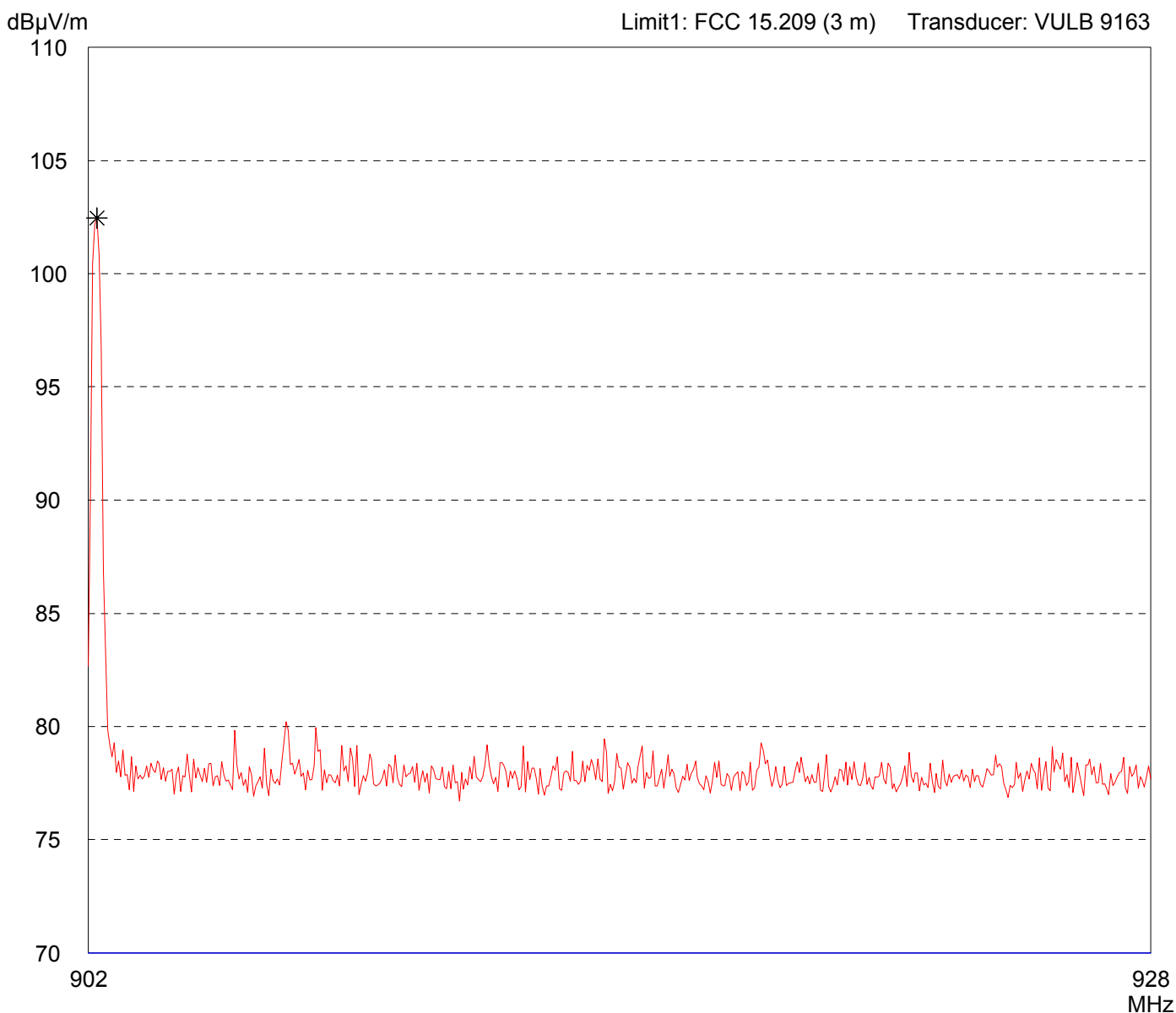


Result:	Project file: 56109-81425
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Radiated Emission Test 902 MHz - 928 MHz acc. to FCC Part 15 Subpart C (FAR)

Model: AC4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 902 MHz
Serial no.:	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 11/12/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--



Result:	Project file: 56109-81425
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Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

Model:
AC4490LR-200M

Serial no.:

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
Test distance 3 metres
Horizontal Polarization

Date of test:
11/12/2008

Operator:
J. Roidt

Test performed:
automatically

File name:
default.emi

Comment:

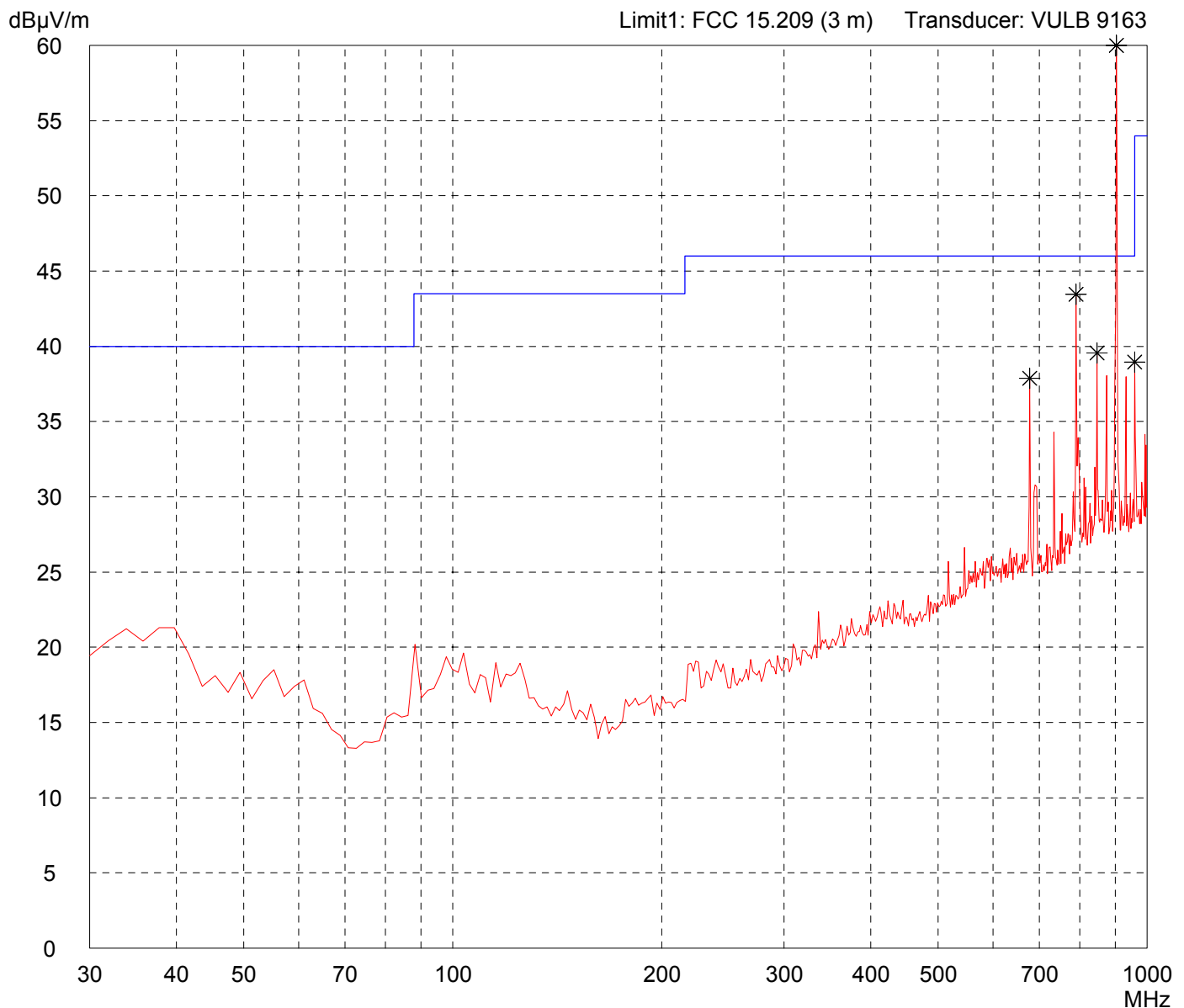
- Antenna ANT-916-SP
- TX CW at 927.5 MHz

Detector:
Peak

List of values:

10 dB Margin

50 Subranges



Result:

Project file:

56109-81425

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

Model:
AC4490LR-200M

Serial no.:

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
Test distance 3 metres
Vertical Polarization

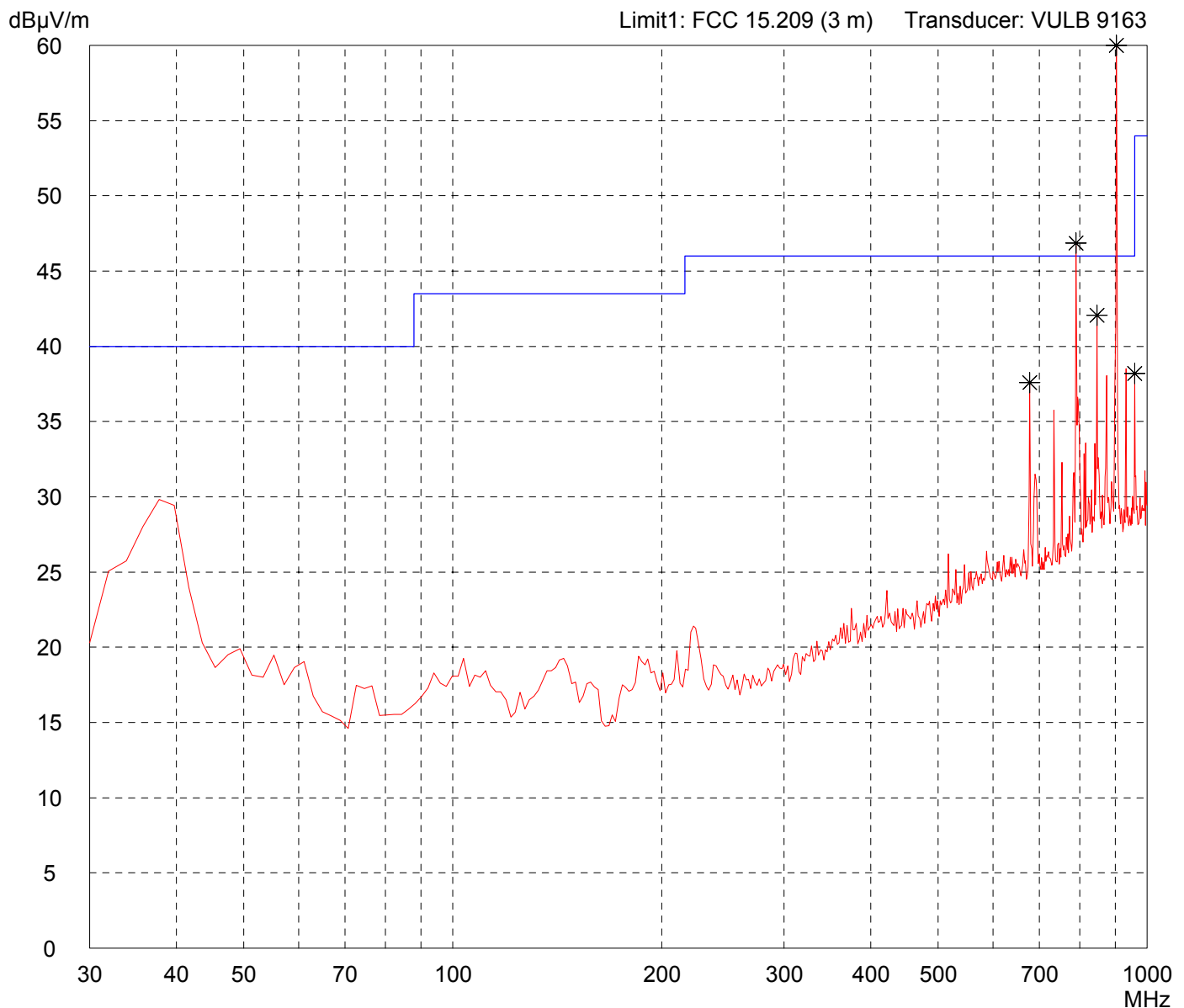
Date of test: 11/12/2008
Operator: J. Roidt

Test performed: automatically
File name: default.emi

Comment:
- Antenna ANT-916-SP
- TX CW at 927.5 MHz

Detector:
Peak

List of values:
10 dB Margin 50 Subranges



Result:

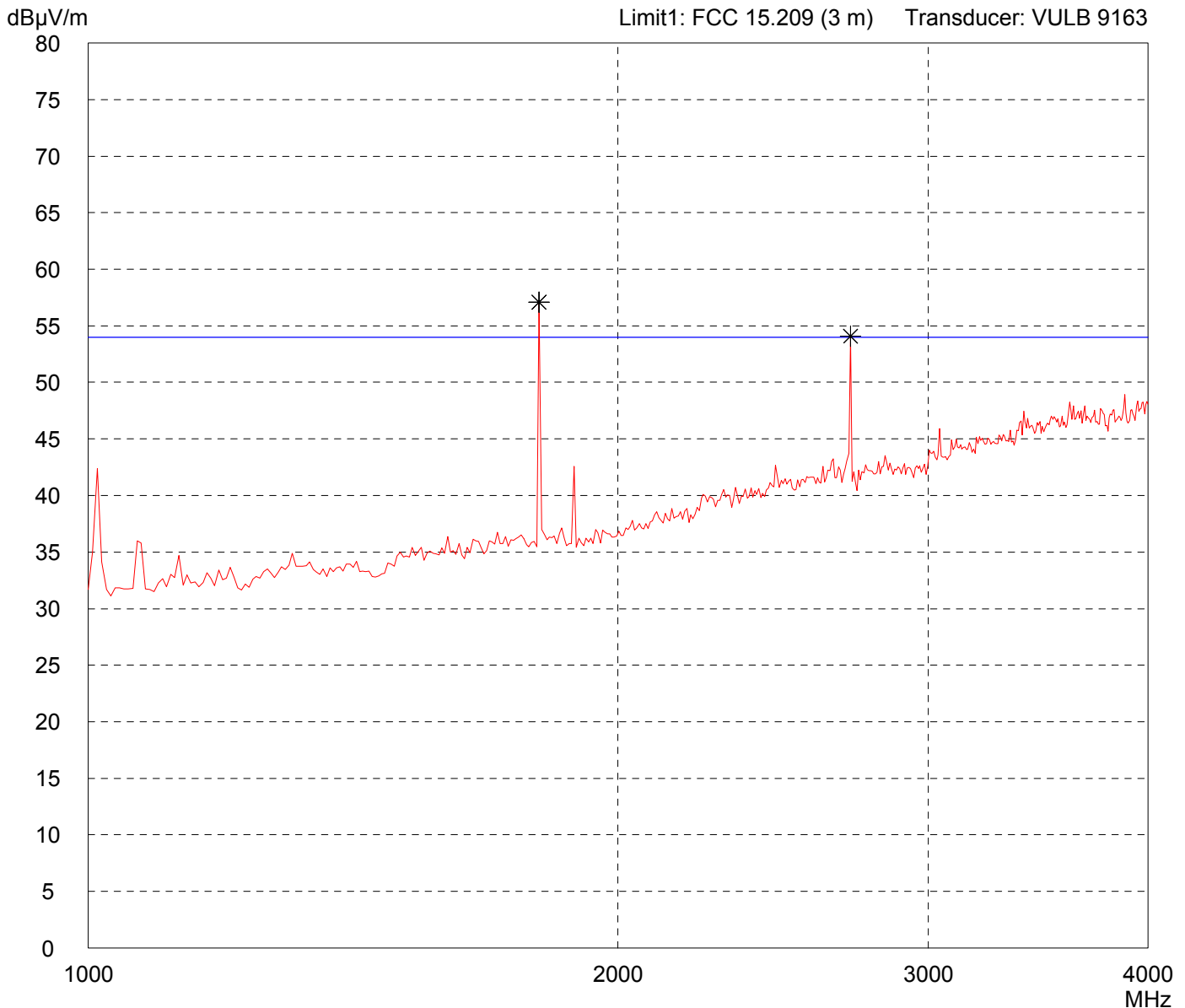
Project file:
56109-81425

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

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 902.2 MHz - Notch Filter tuned to fundamental frequency
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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Result:	Project file: 56109-81425-1
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Radiated Emission Test 1 GHz - 4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model:
4490LR-200M

Serial no.:
Test Sample #1

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
**Test distance 3 metres
Vertical Polarization**

Date of test: 11/13/2008
Operator: J. Roidt

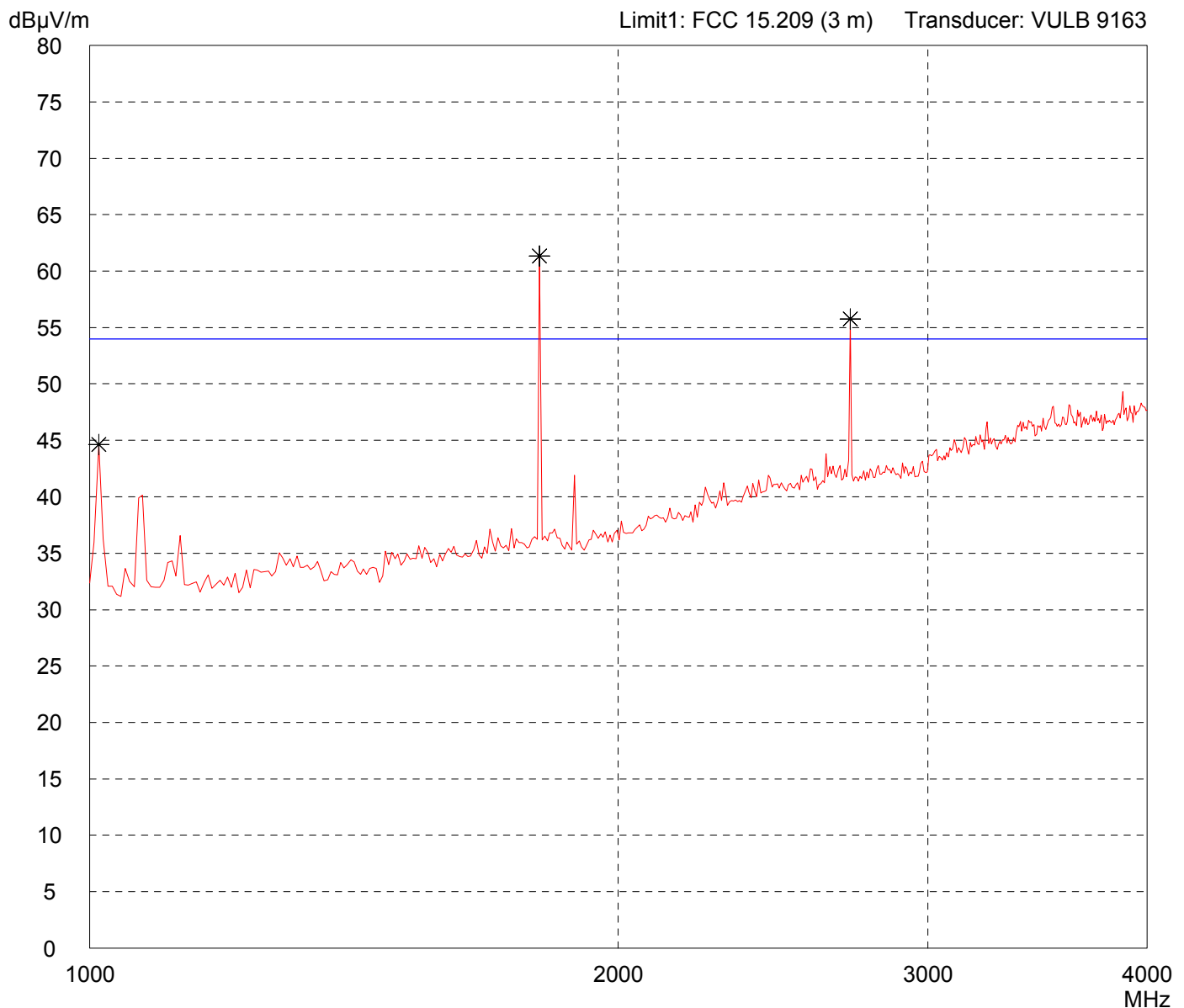
Test performed: automatically
File name: default.emi

Comment:

- Antenna ANT-916-SP
- TX CW at 902.2 MHz
- Notch Filter tuned to fundamental frequency

Detector:
Peak

List of values:
Selected by hand



Result:

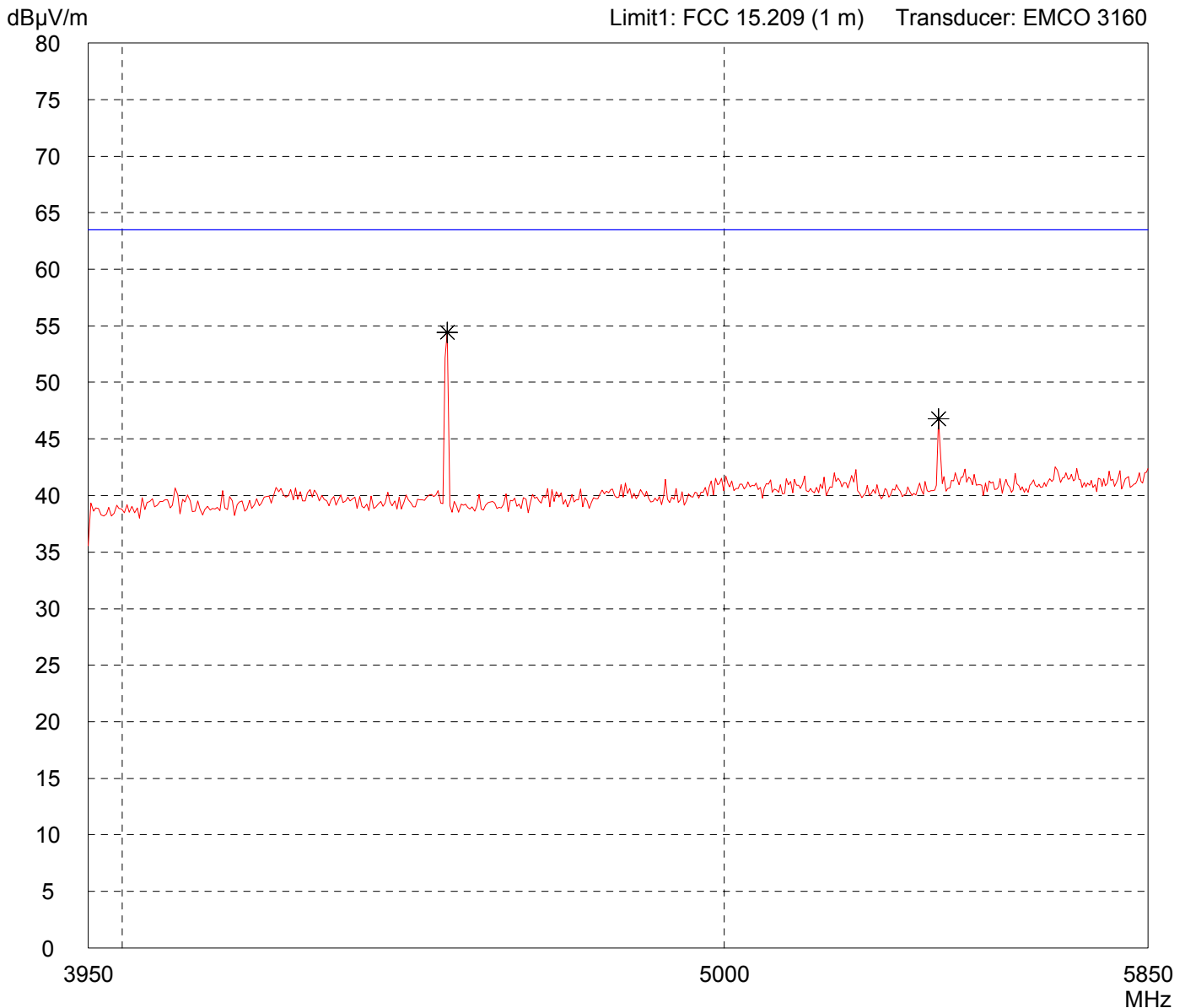
Project file:
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Radiated Emission Test 3.95 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 902.2 MHz - Notch Filter tuned to fundamental frequency
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--

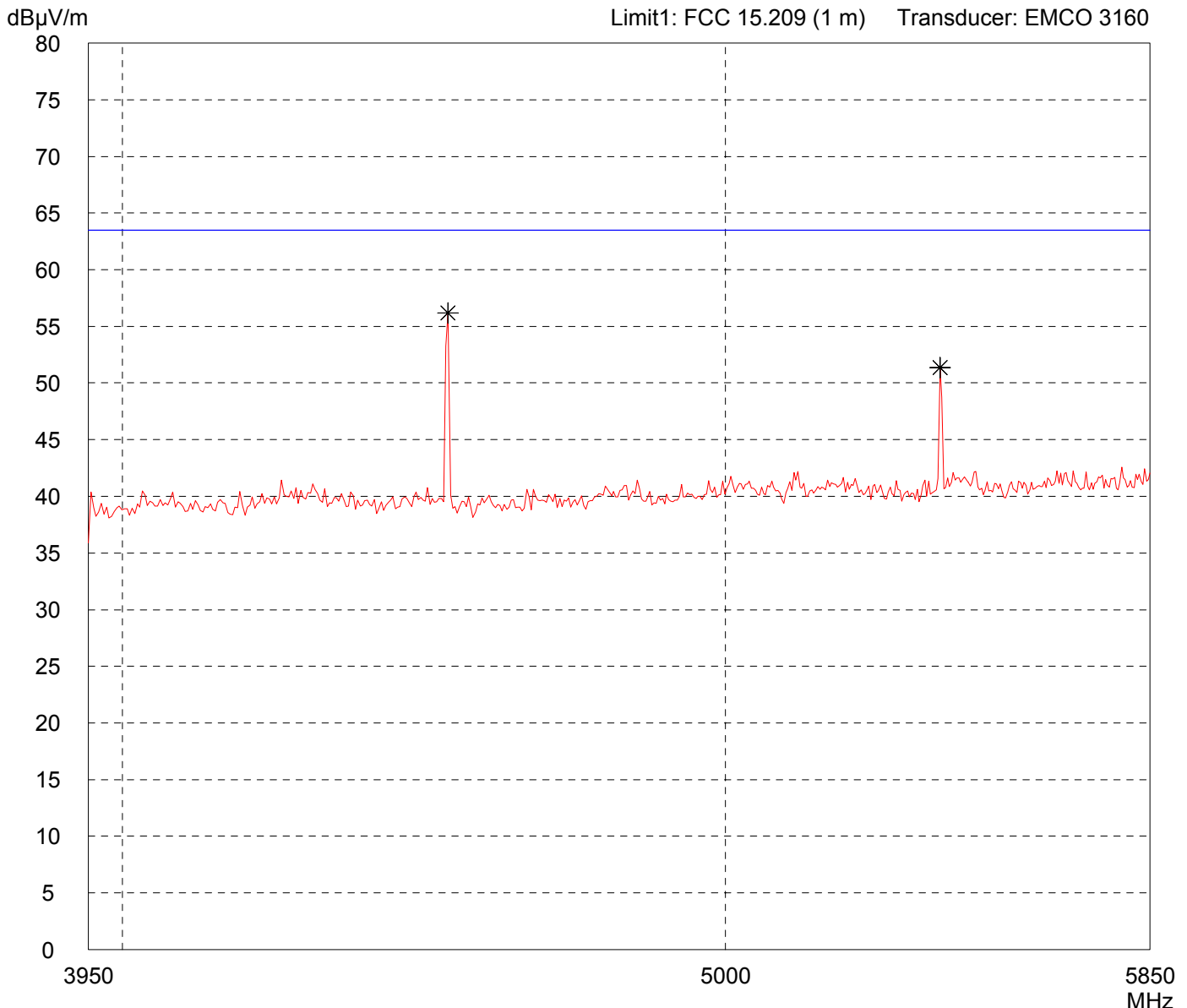


Result:	Project file: 56109-81425-1
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Radiated Emission Test 3.95 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 902.2 MHz - Notch Filter tuned to fundamental frequency
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--

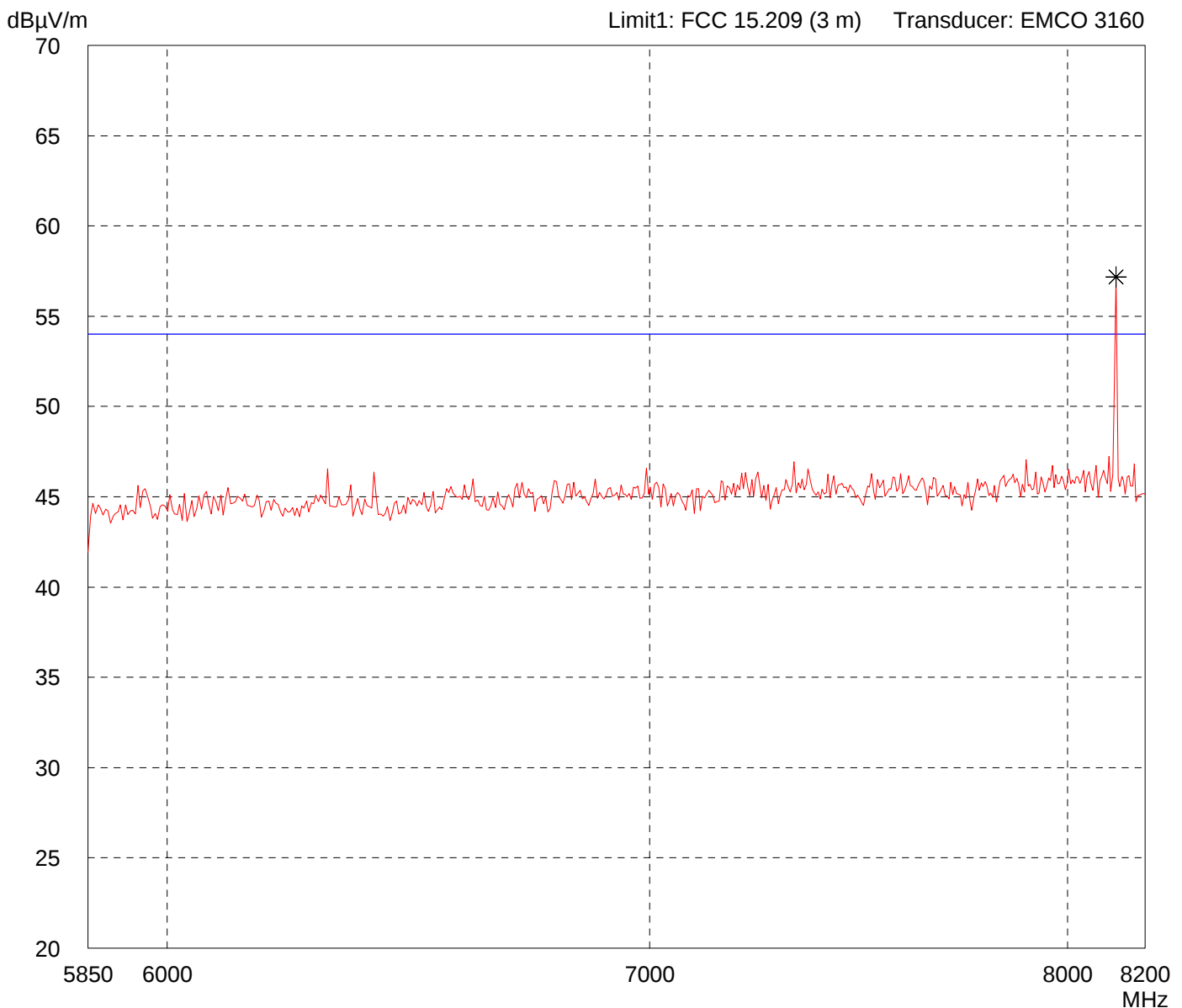


Result:	Project file: 56109-81425-1
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Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - TX-CW at Low Channel
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 13 November 2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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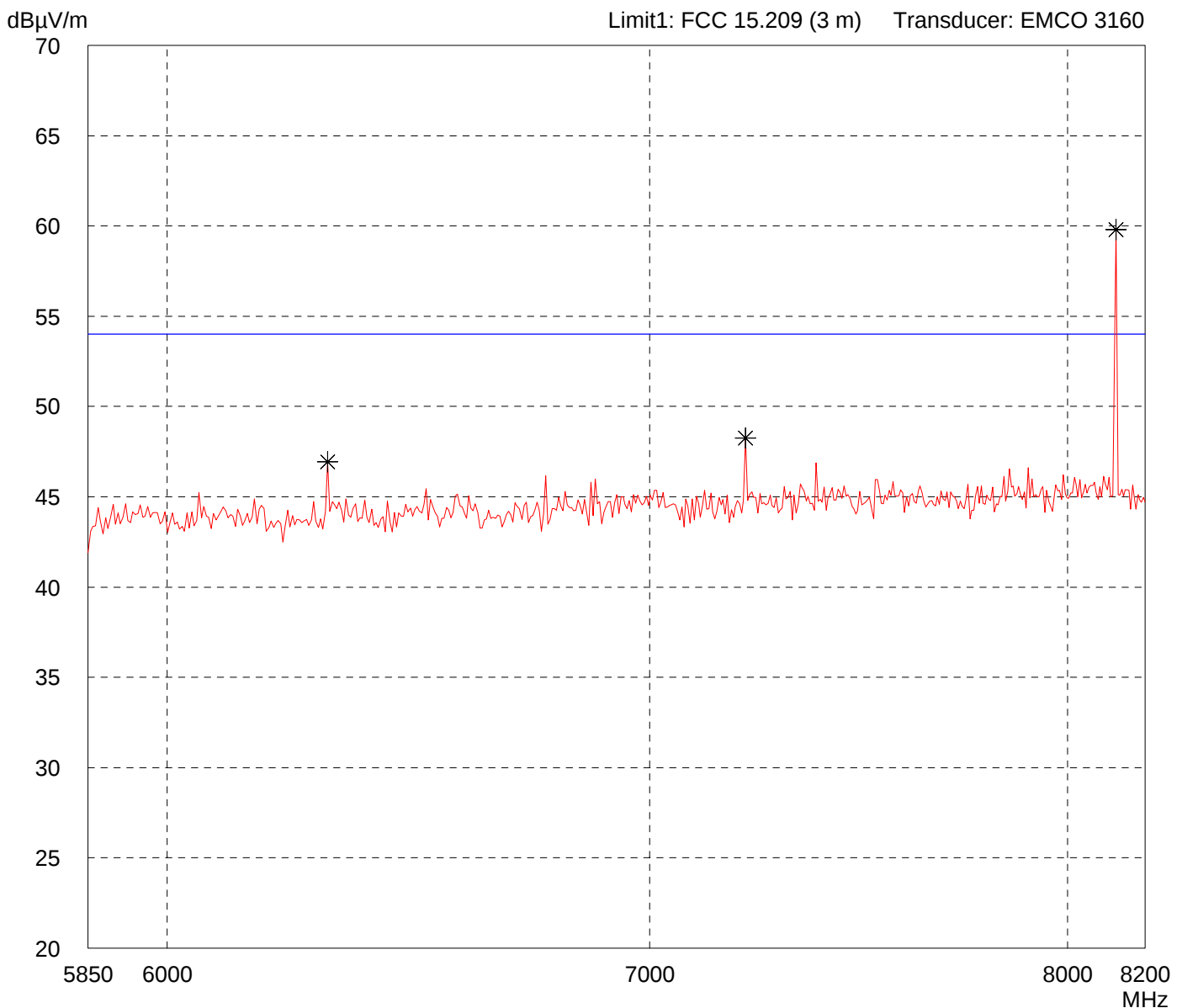


Result:	Project file: 56109-81425
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Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - TX-CW at Low Channel
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 13 November 2008	Operator: J. Roidt
Test performed: by hand	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--

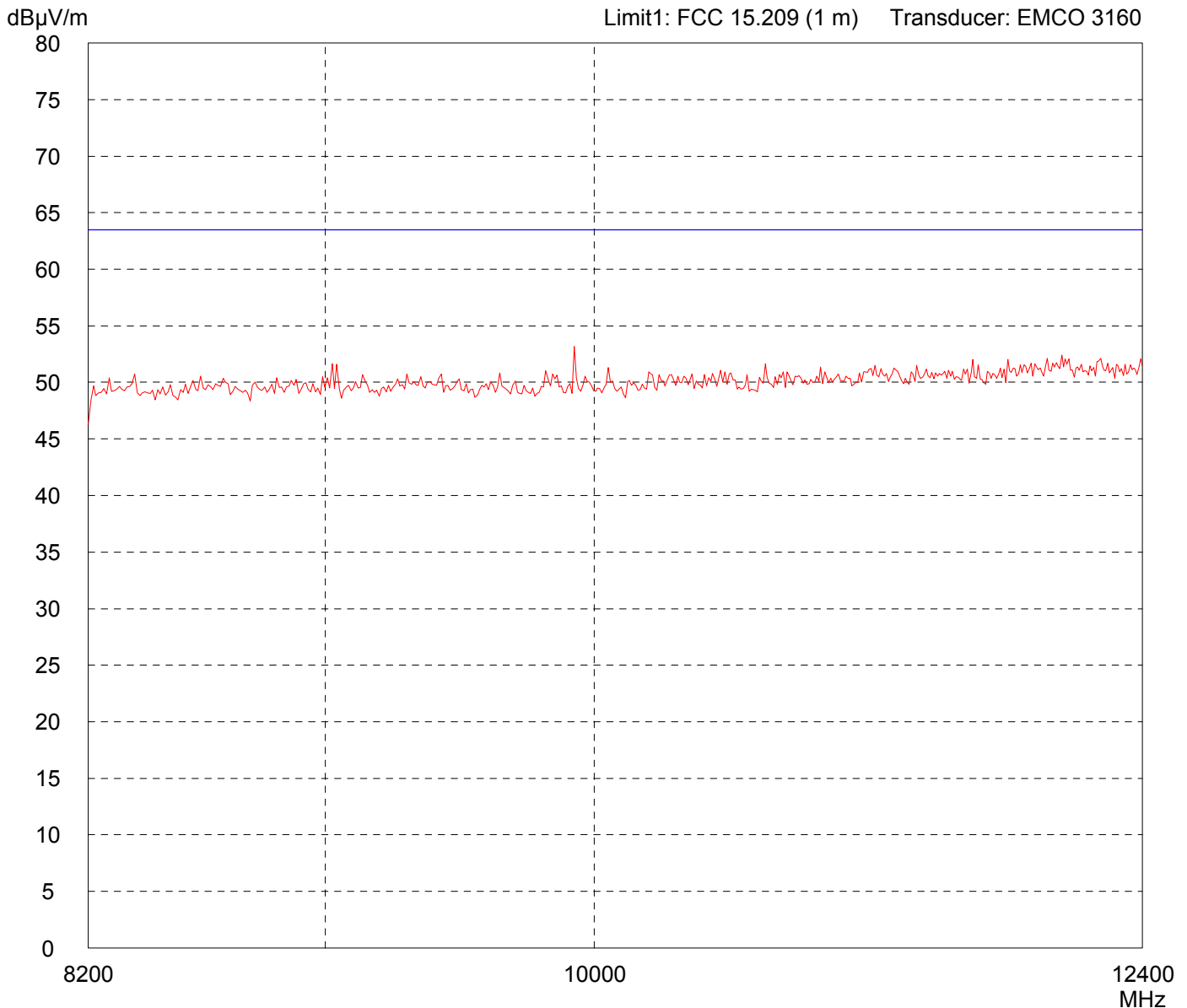


Result:	Project file: 56109-81425
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Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 902.2 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

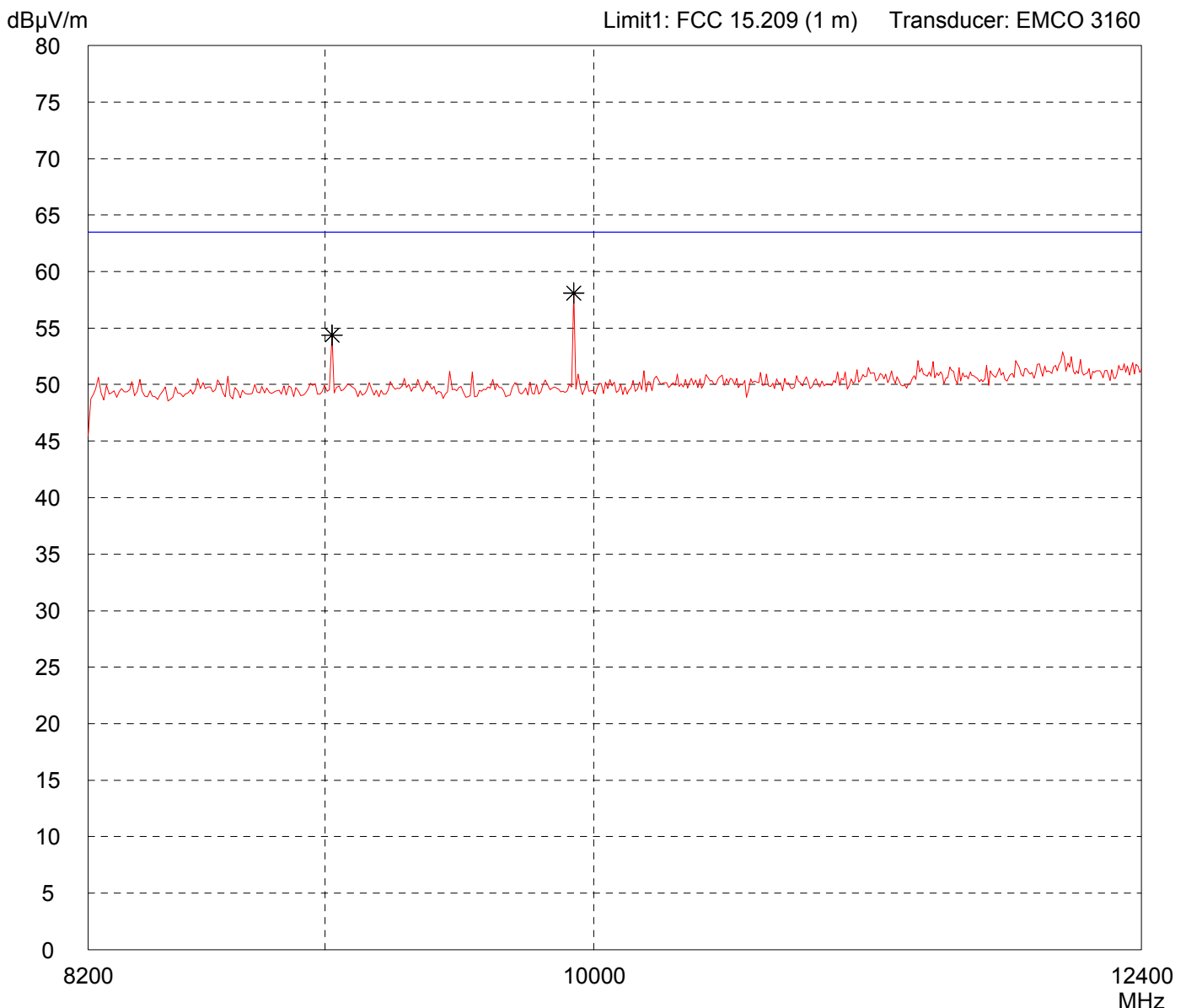


Result:	Project file: 56109-81425-1
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Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 902.2 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

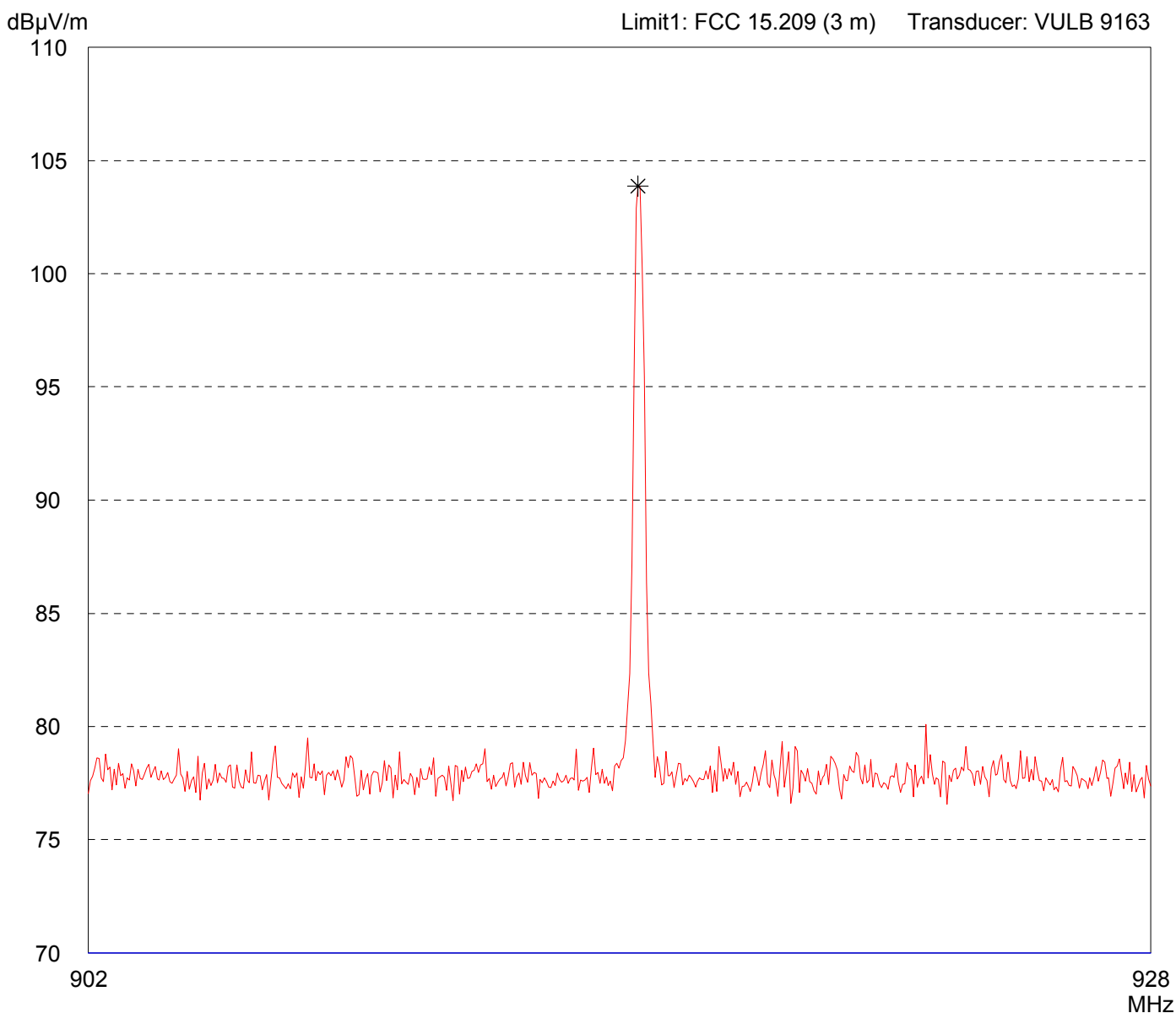


Result:	Project file: 56109-81425-1
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Radiated Emission Test 902 MHz - 928 MHz acc. to FCC Part 15 Subpart C (FAR)

Model: AC4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz
Serial no.:	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 11/12/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--

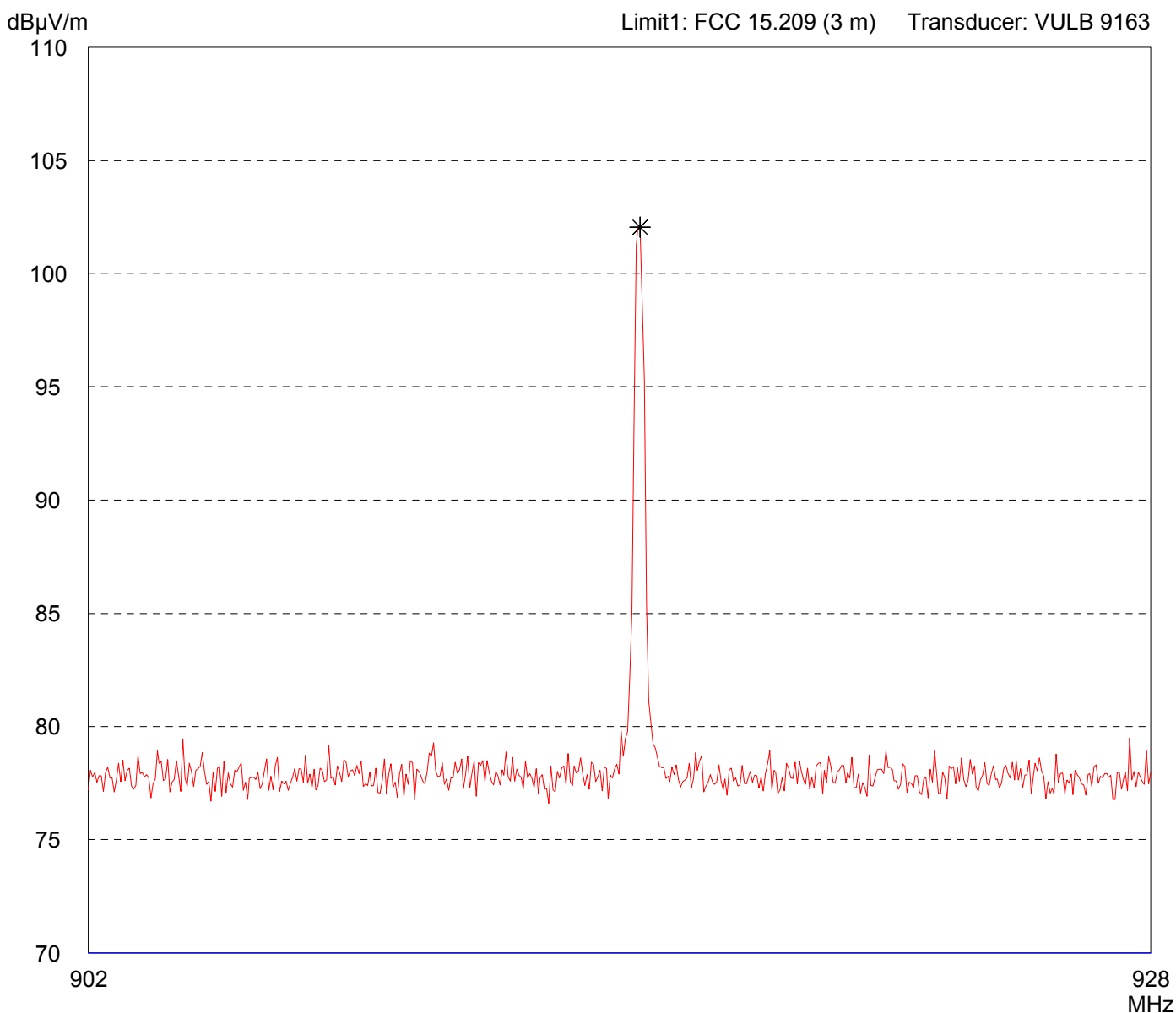


Result:	Project file: 56109-81425
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Radiated Emission Test 902 MHz - 928 MHz acc. to FCC Part 15 Subpart C (FAR)

Model: AC4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz
Serial no.:	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 11/12/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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Result:	Project file: 56109-81425
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Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

Model:
AC4490LR-200M

Serial no.:

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
Test distance 3 metres
Horizontal Polarization

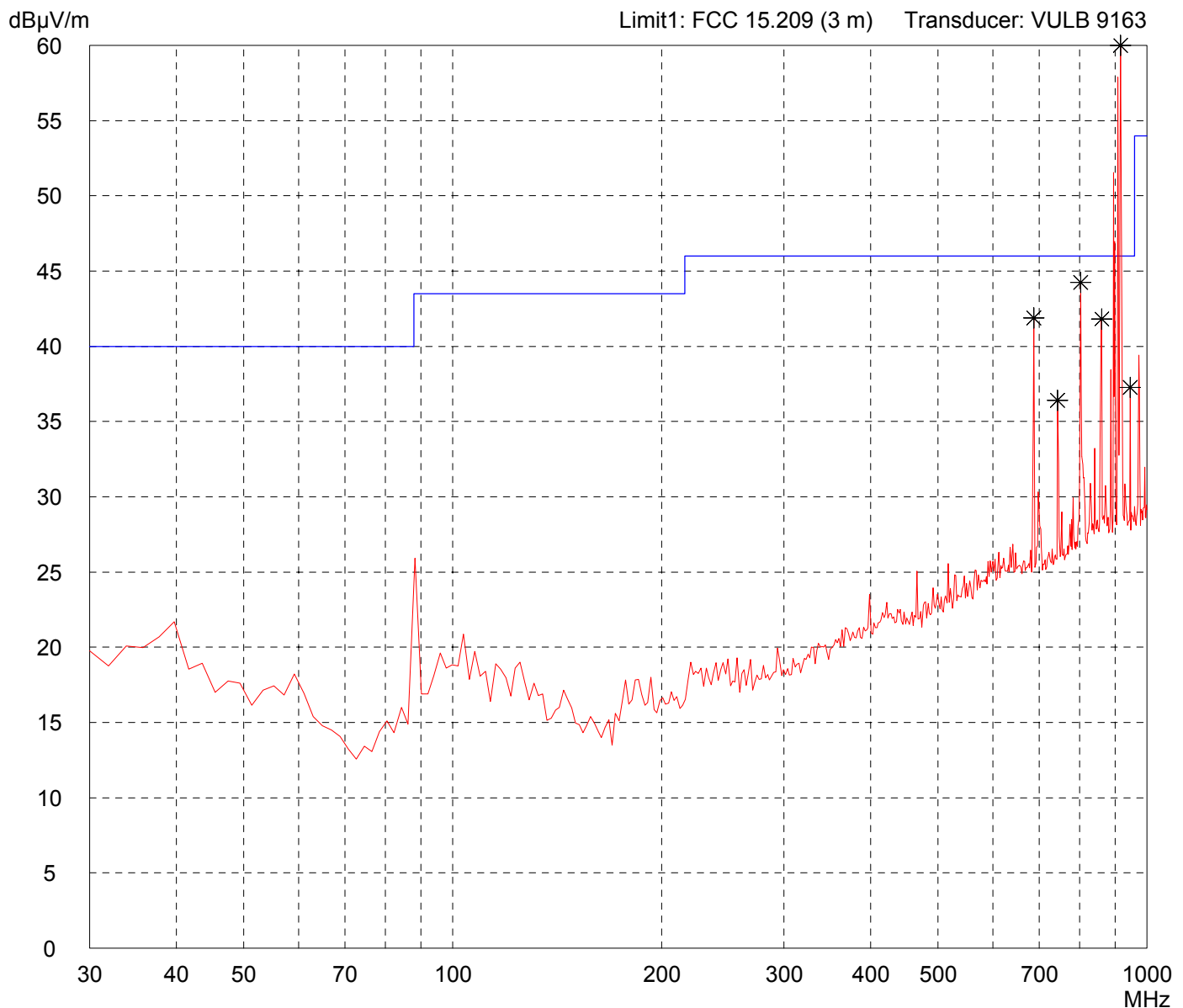
Date of test: 11/12/2008
Operator: J. Roidt

Test performed: automatically
File name: default.emi

Comment:
- Antenna ANT-916-SP
- TX CW at 915.4 MHz

Detector:
Peak

List of values:
10 dB Margin 50 Subranges



Result:

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

Model:
AC4490LR-200M

Serial no.:

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
Test distance 3 metres
Vertical Polarization

Date of test:
11/12/2008

Operator:
J. Roidt

Test performed:
automatically

File name:
default.emi

Comment:

- Antenna ANT-916-SP

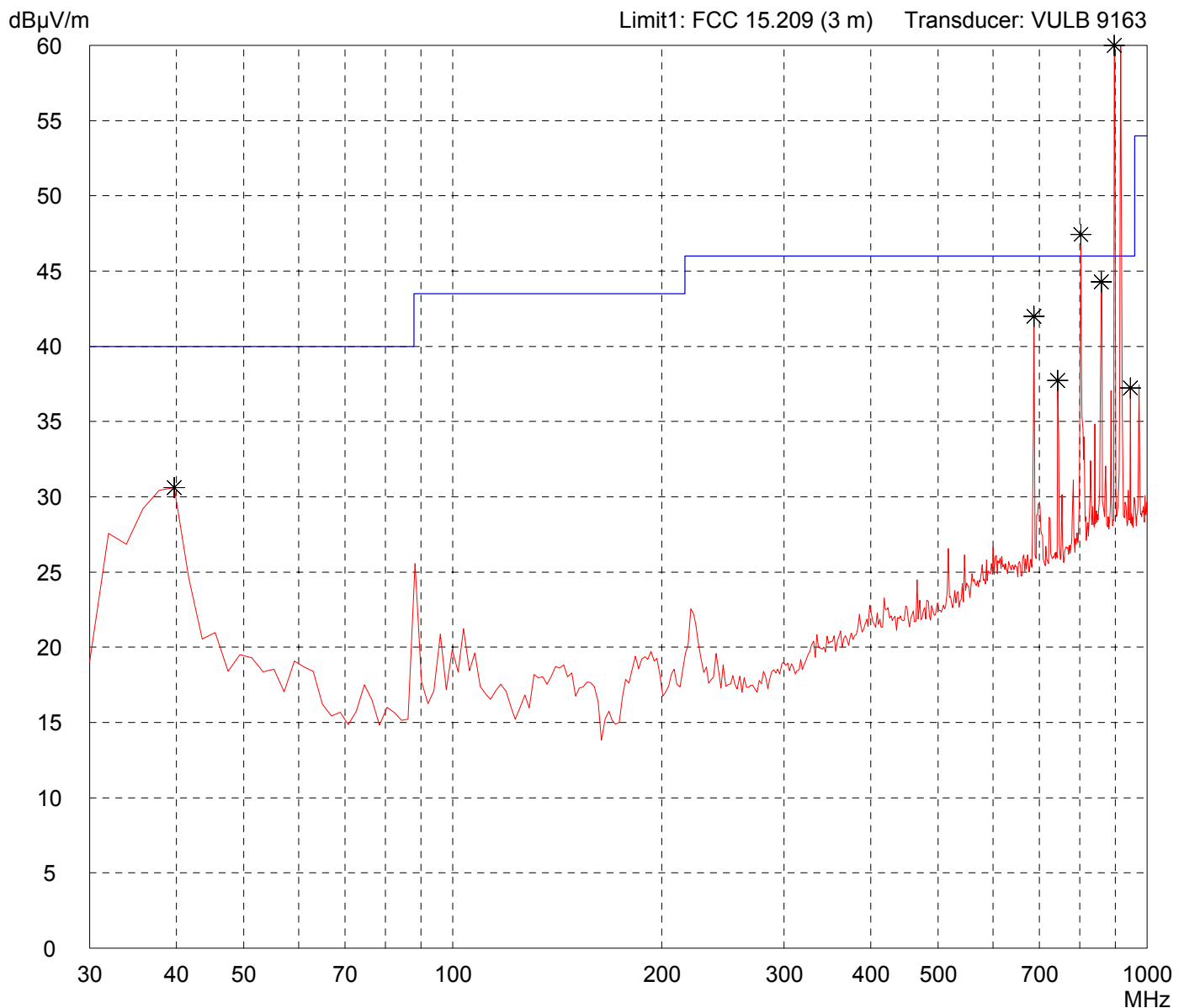
- TX CW at 915.4 MHz

Detector:
Peak

List of values:

10 dB Margin

50 Subranges



Result:
Prescan

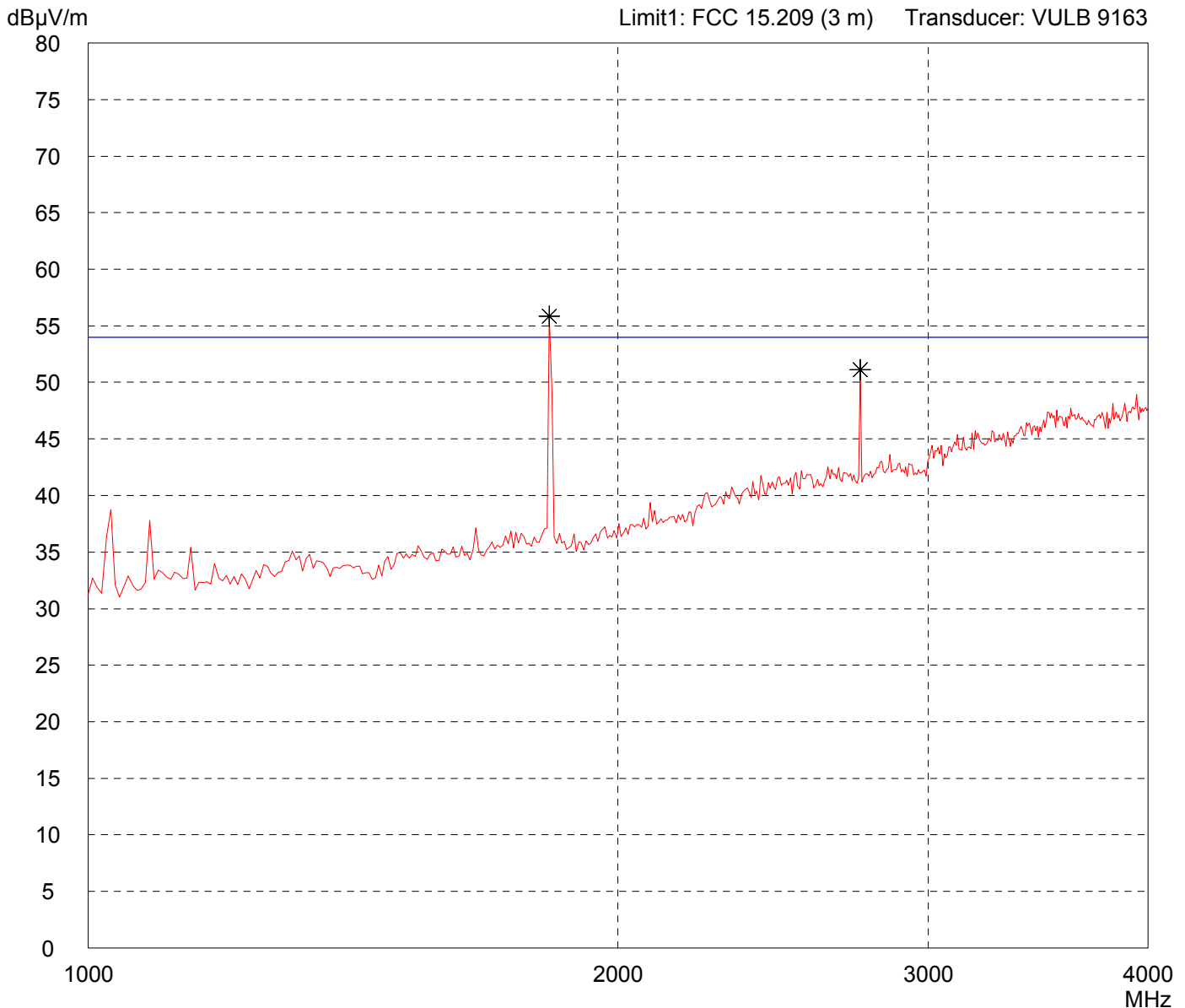
Project file:
56109-81425

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

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz - Notch Filter tuned to fundamental frequency
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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Result:	Project file: 56109-81425-1
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Radiated Emission Test 1 GHz - 4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model:
4490LR-200M

Serial no.:
Test Sample #1

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
**Test distance 3 metres
Vertical Polarization**

Date of test: 11/13/2008
Operator: J. Roidt

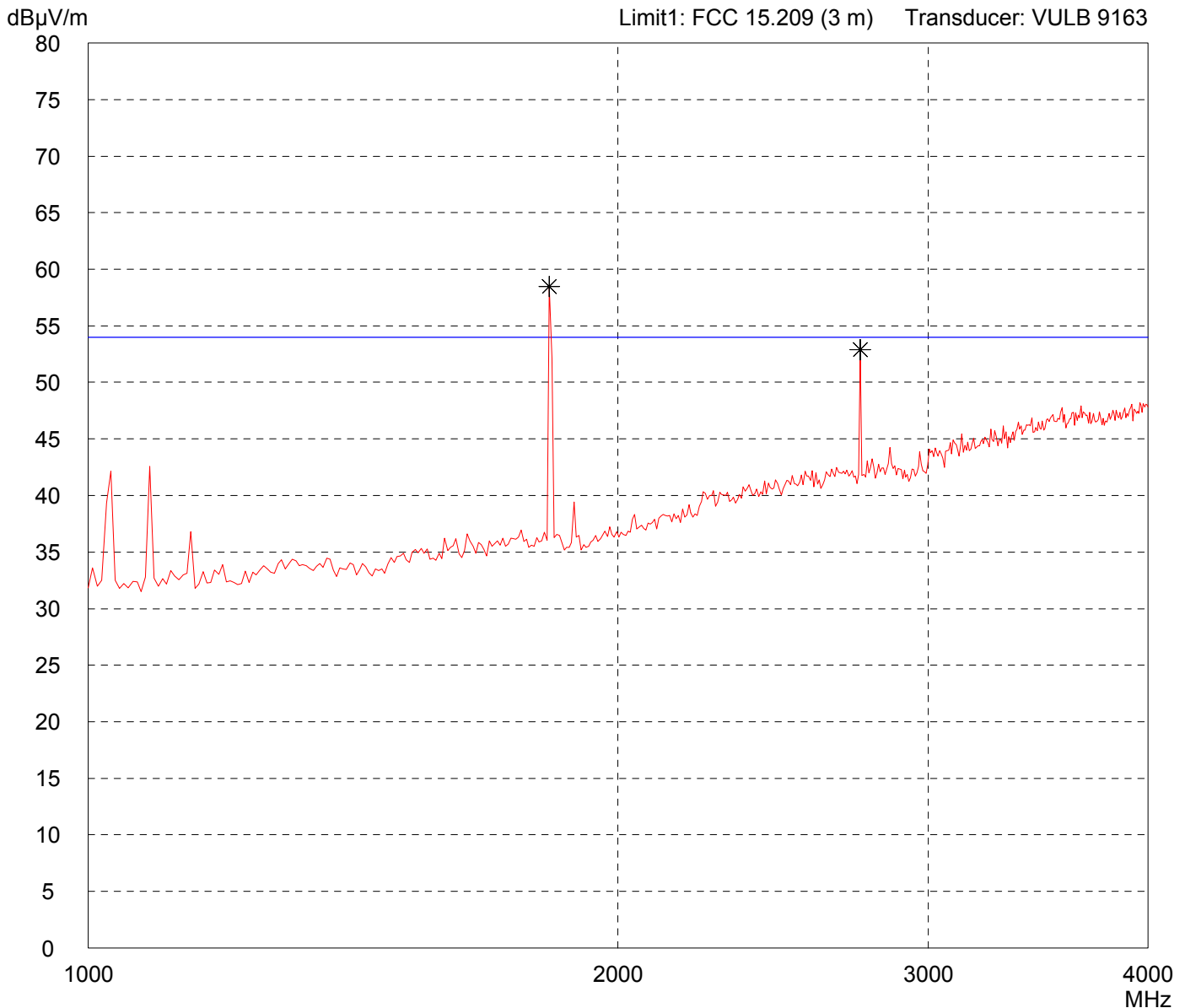
Test performed: automatically
File name: default.emi

Comment:

- Antenna ANT-916-SP
- TX CW at 915.4 MHz
- Notch Filter tuned to fundamental frequency

Detector:
Peak

List of values:
Selected by hand



Result:

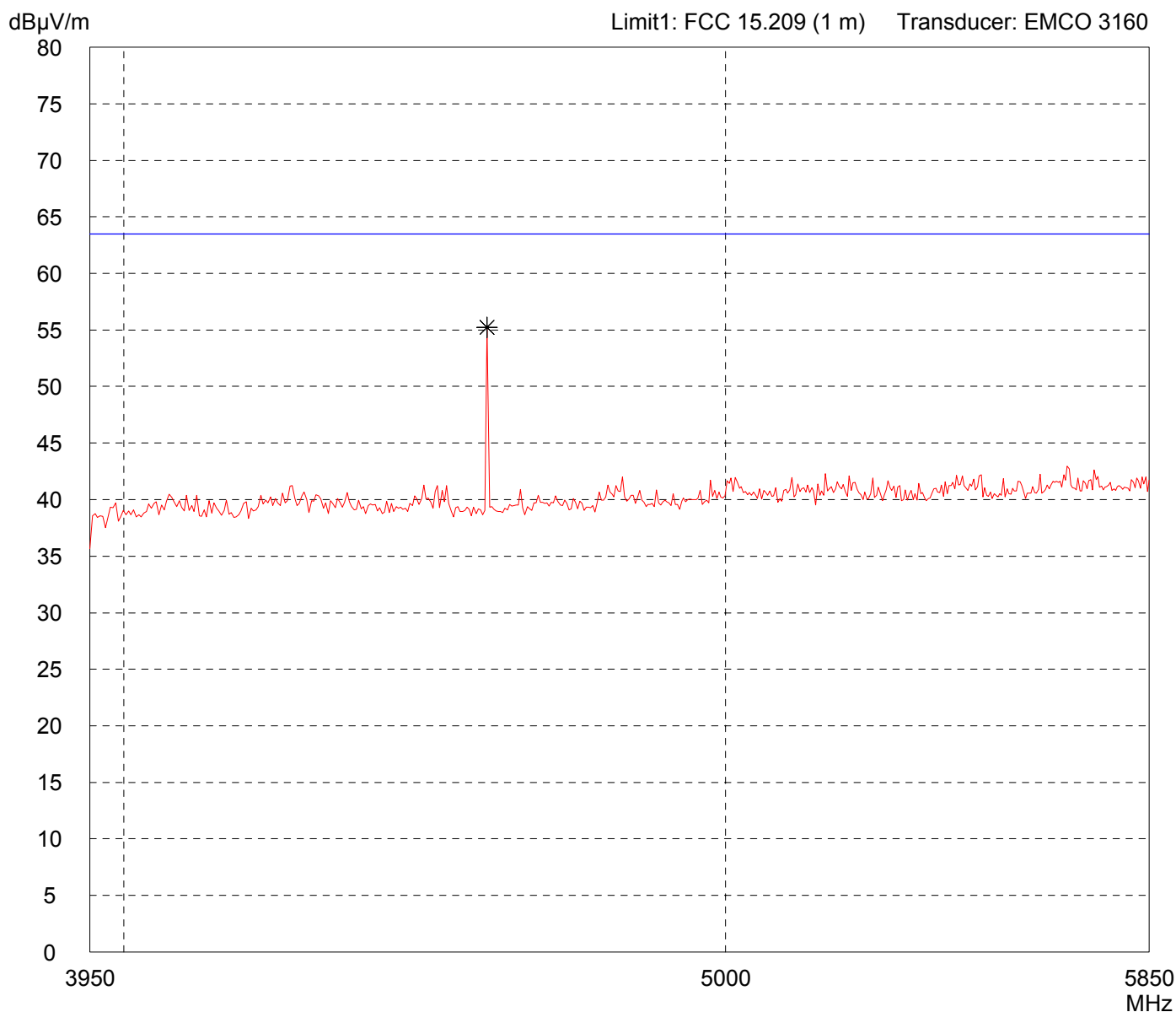
Project file:
56109-81425-1

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

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

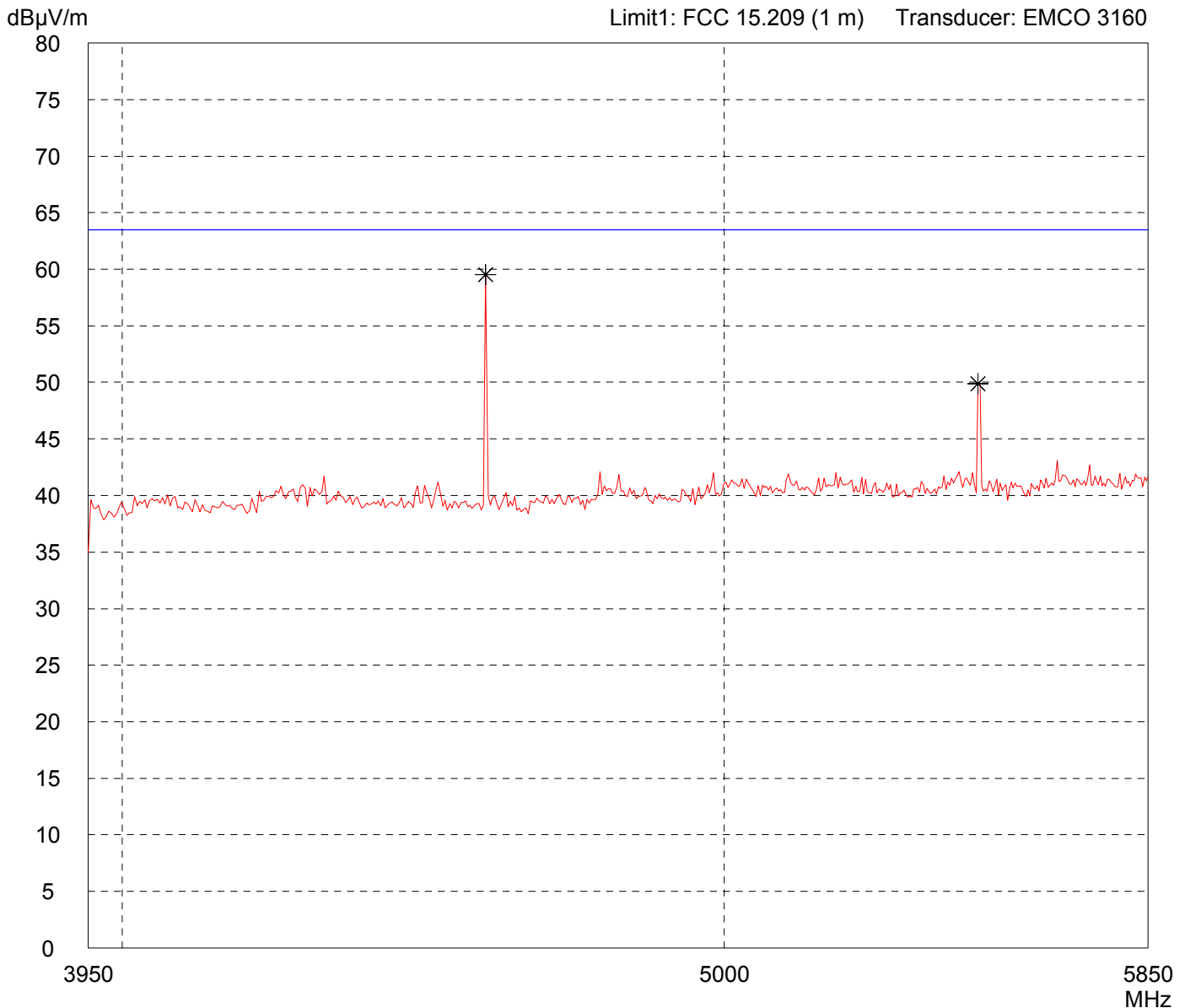


Result:	Project file: 56109-81425-1
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Radiated Emission Test 3.95 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--

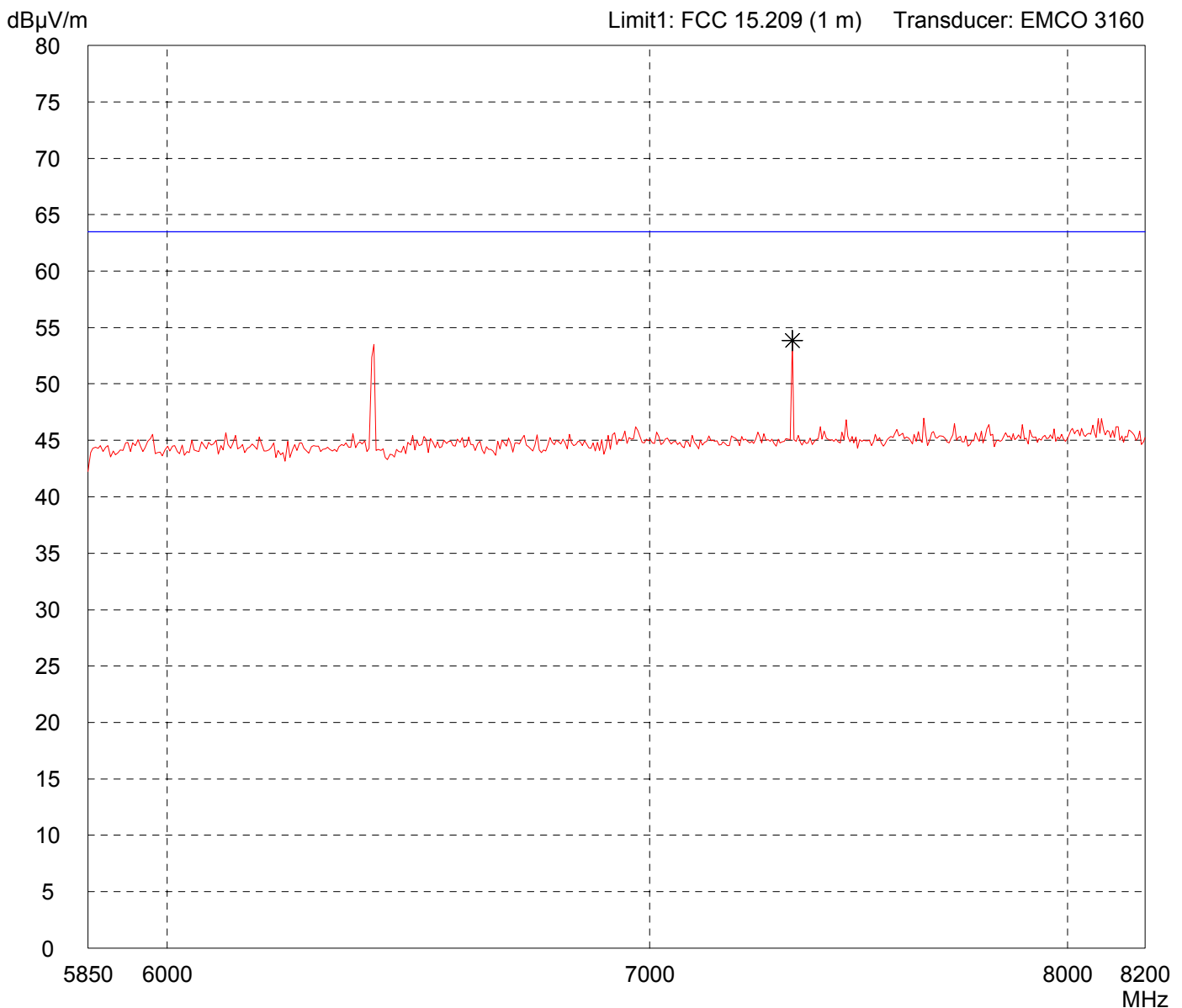


Result:	Project file: 56109-81425-1
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Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

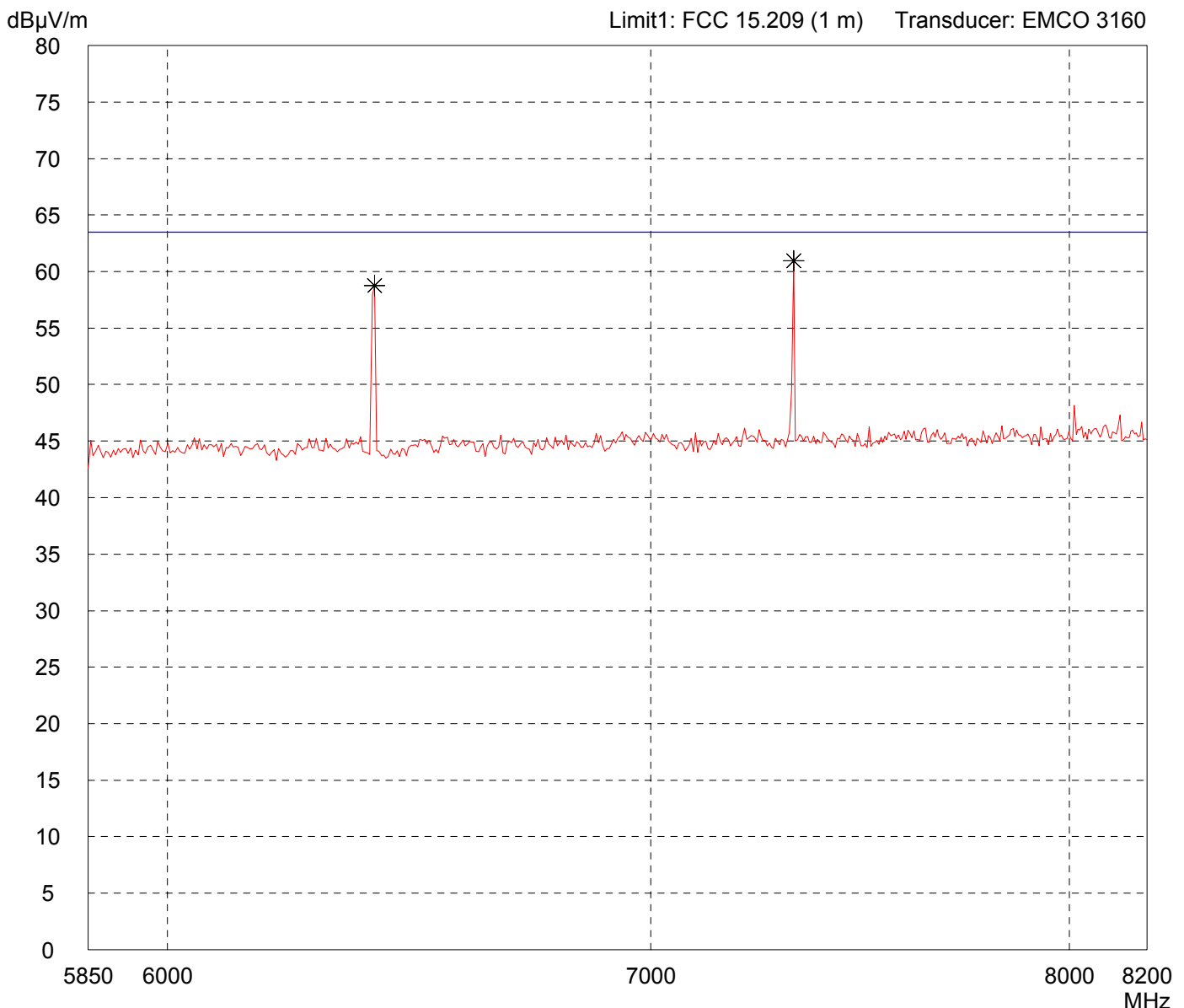


Result:	Project file: 56109-81425-1
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Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

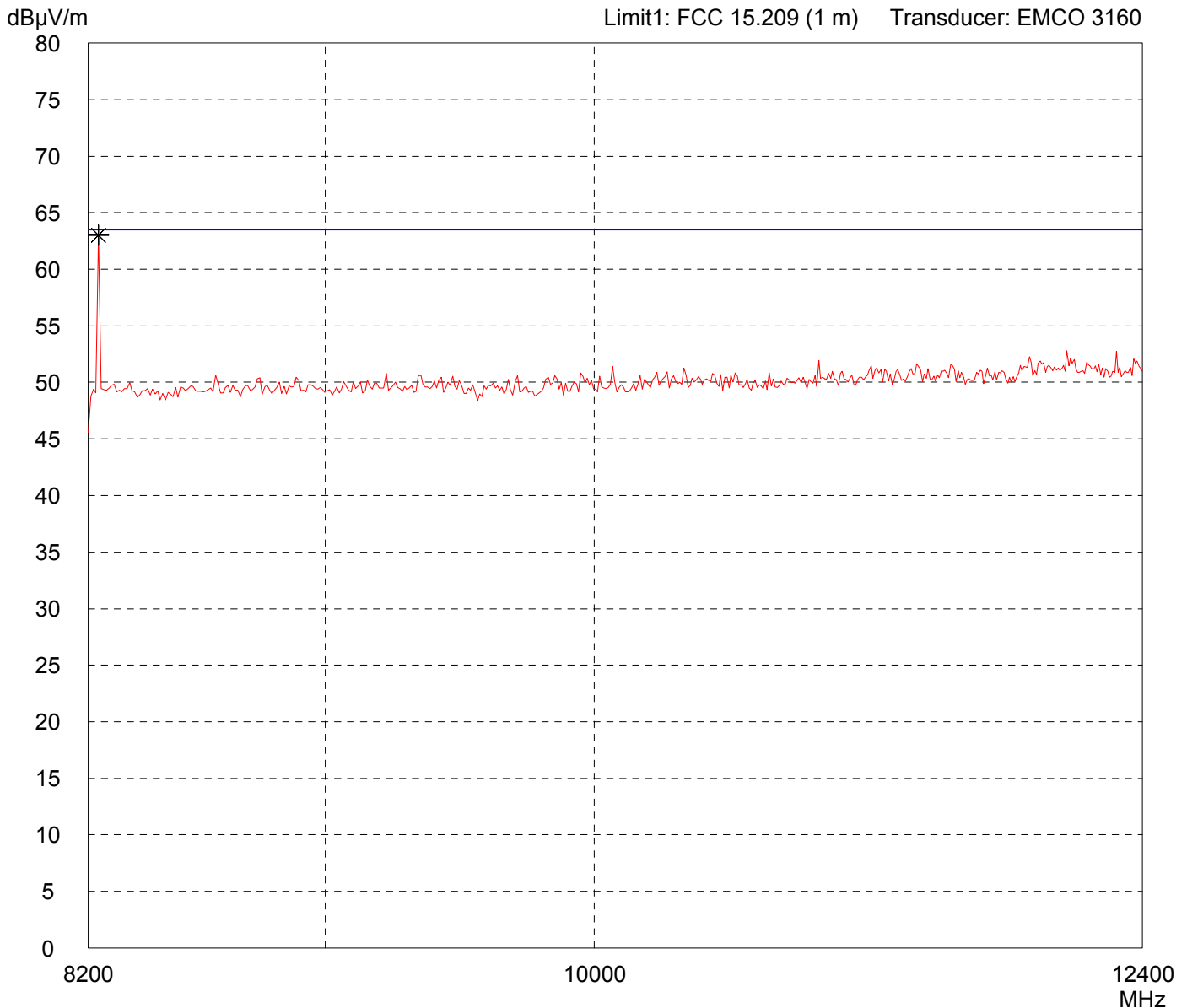


Result:	Project file: 56109-81425-1
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Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

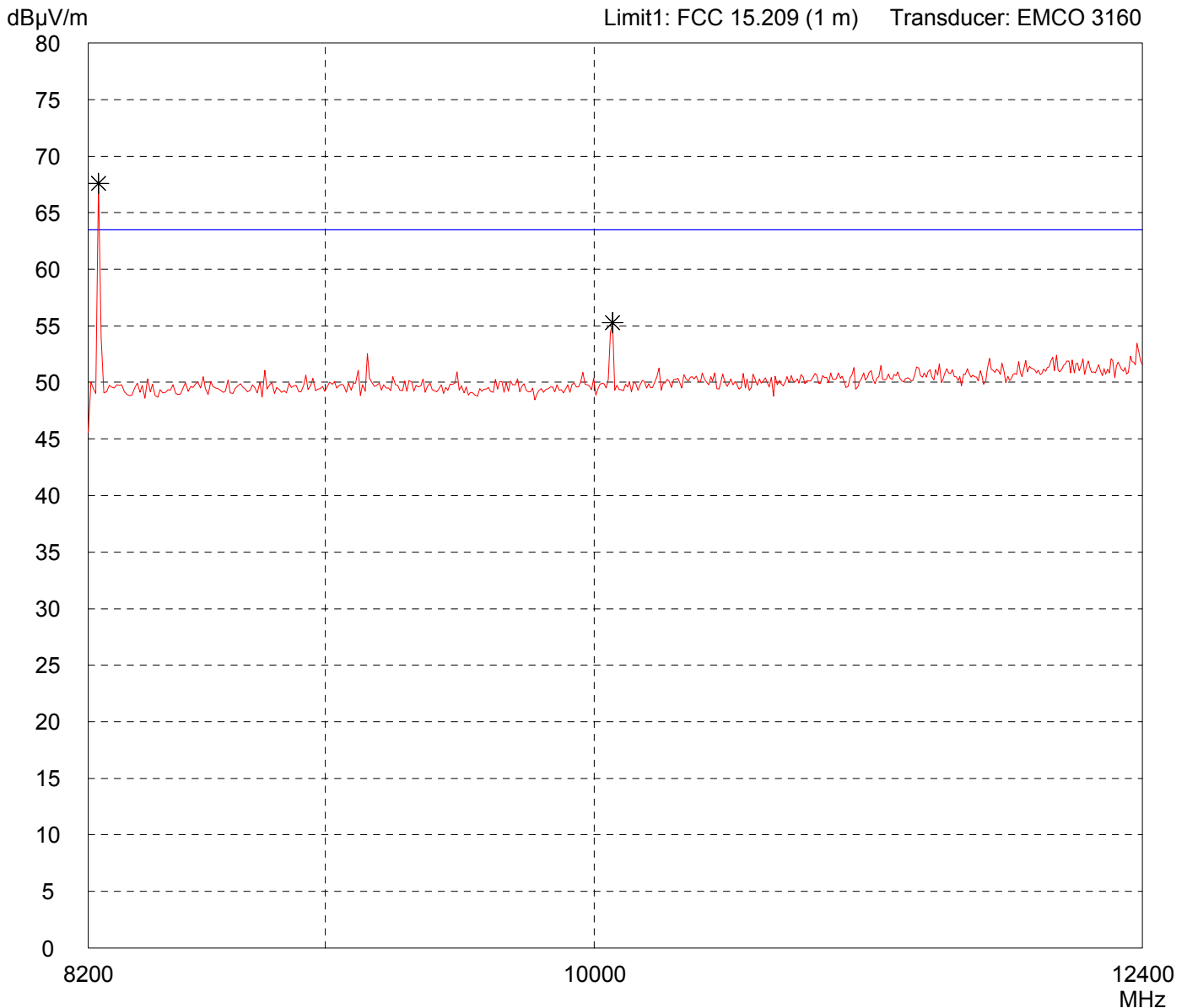


Result:	Project file: 56109-81425-1
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Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 915.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

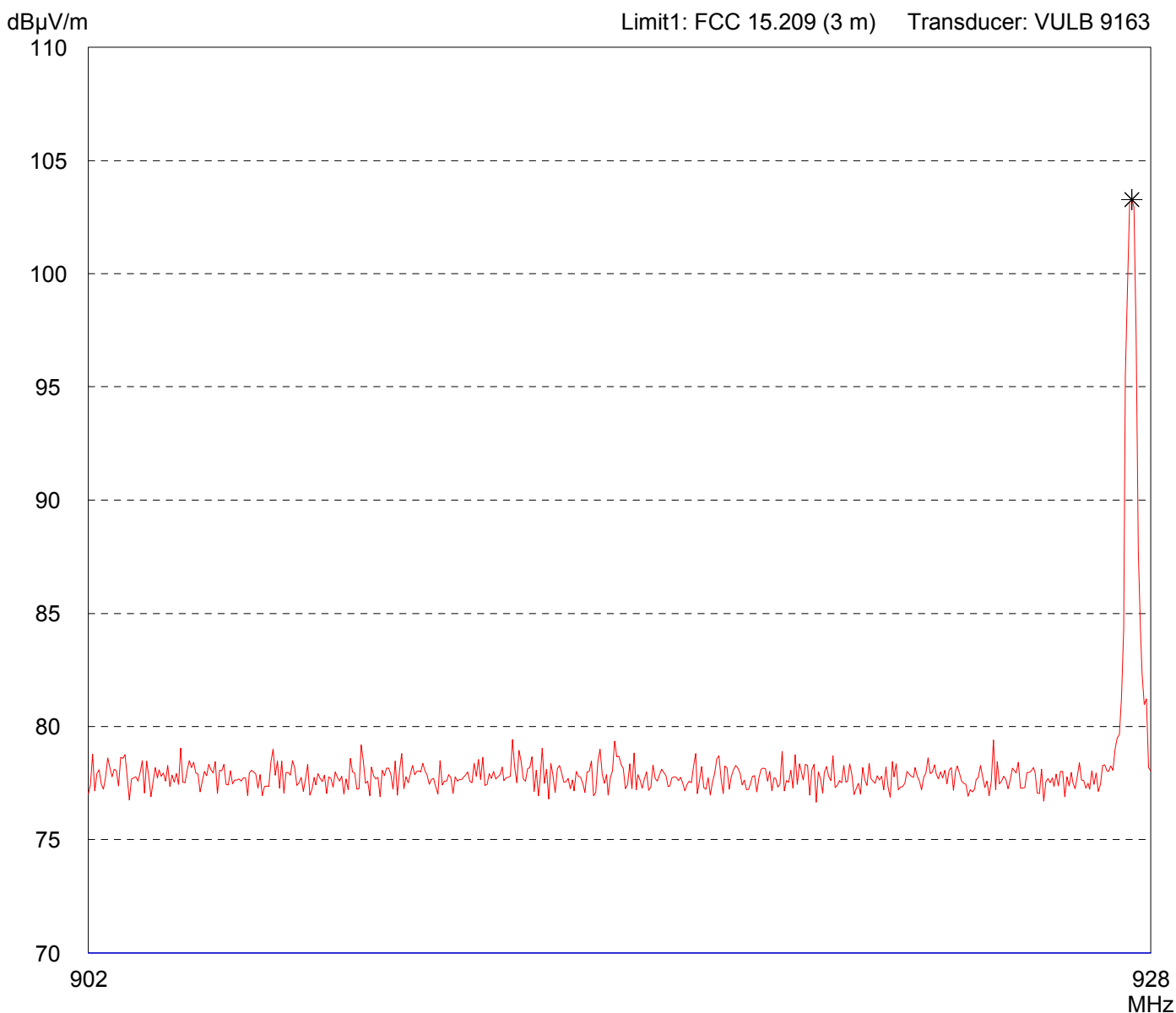


Result:	Project file: 56109-81425-1
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Radiated Emission Test 902 MHz - 928 MHz acc. to FCC Part 15 Subpart C (FAR)

Model: AC4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 927.5 MHz
Serial no.:	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 11/12/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--



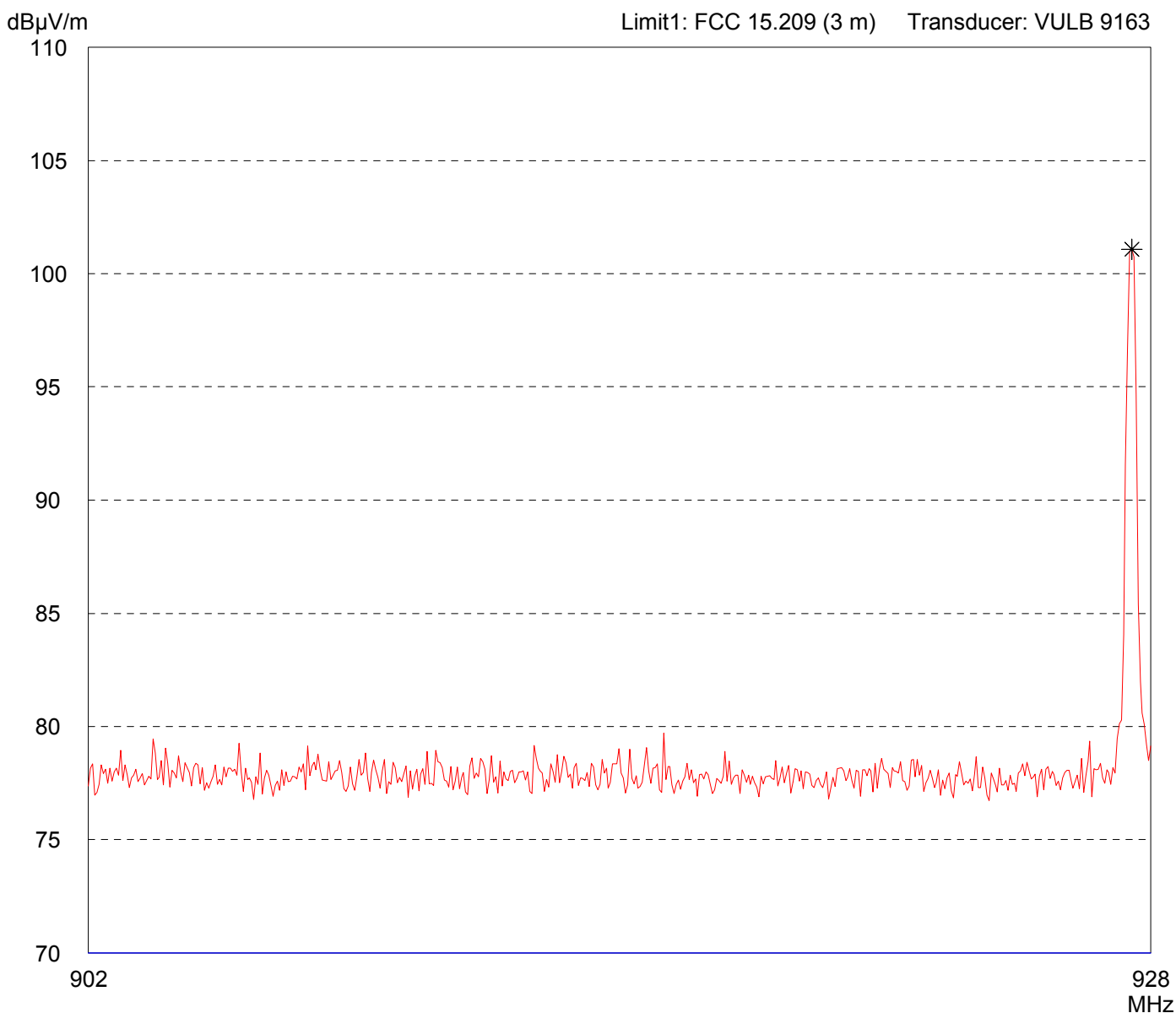
Result:	Project file: 56109-81425
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Radiated Emission Test 902 MHz - 928 MHz acc. to FCC Part 15 Subpart C (FAR)

Model: AC4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 927.5 MHz
Serial no.:	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 11/12/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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Result:	Project file: 56109-81425
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Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

Model:
AC4490LR-200M

Serial no.:

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
Test distance 3 metres
Horizontal Polarization

Date of test:
11/12/2008

Operator:
J. Roidt

Test performed:
automatically

File name:
default.emi

Comment:

- Antenna ANT-916-SP

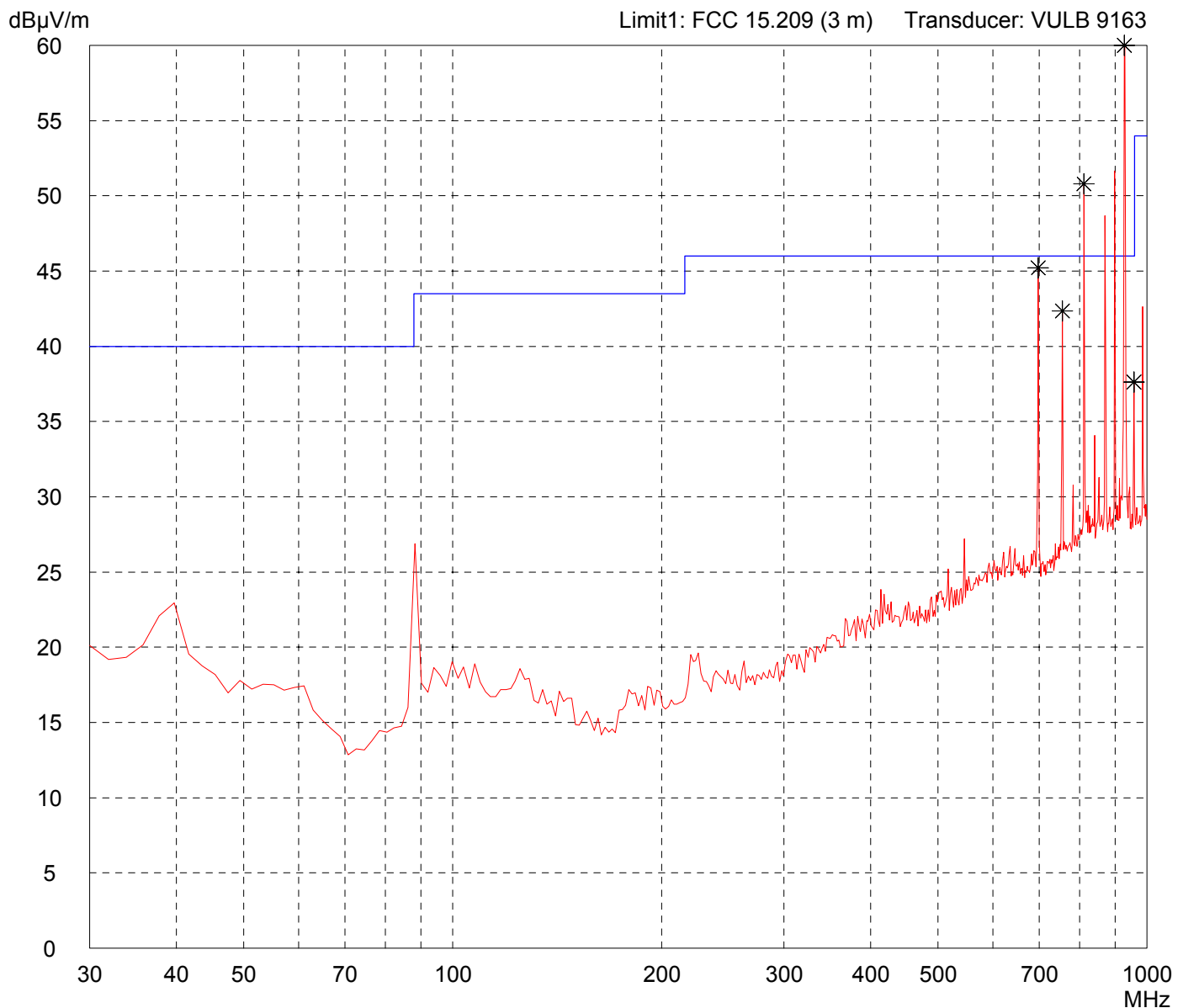
- TX CW at 927.5 MHz

Detector:
Peak

List of values:

10 dB Margin

50 Subranges



Result:
Prescan

Project file:
56109-81425

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

Model:
AC4490LR-200M

Serial no.:

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
Test distance 3 metres
Vertical Polarization

Date of test:
11/12/2008

Operator:
J. Roidt

Test performed:
automatically

File name:
default.emi

Comment:

- Antenna ANT-916-SP

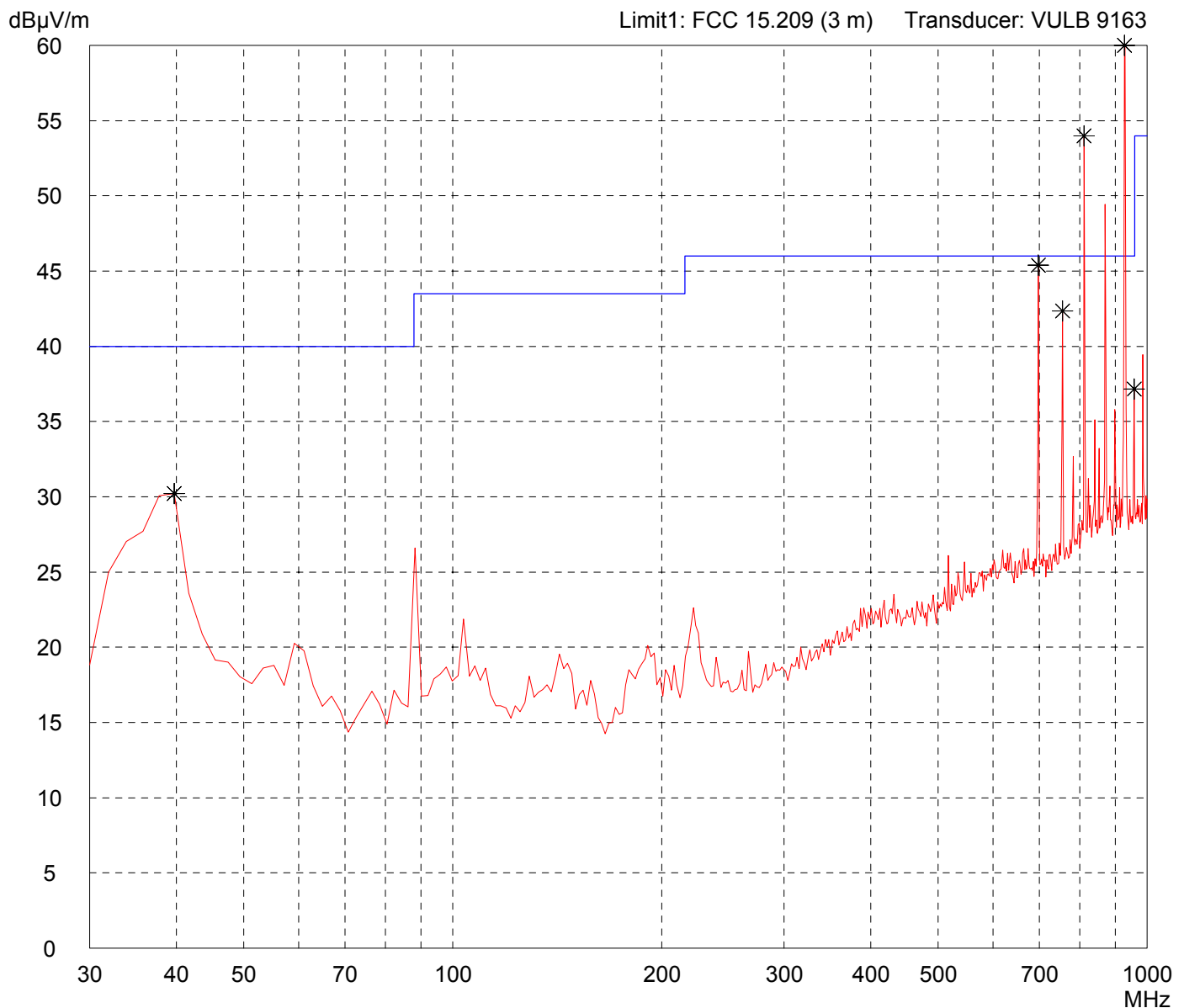
- TX CW at 927.5 MHz

Detector:
Peak

List of values:

10 dB Margin

50 Subranges



Result:
Prescan

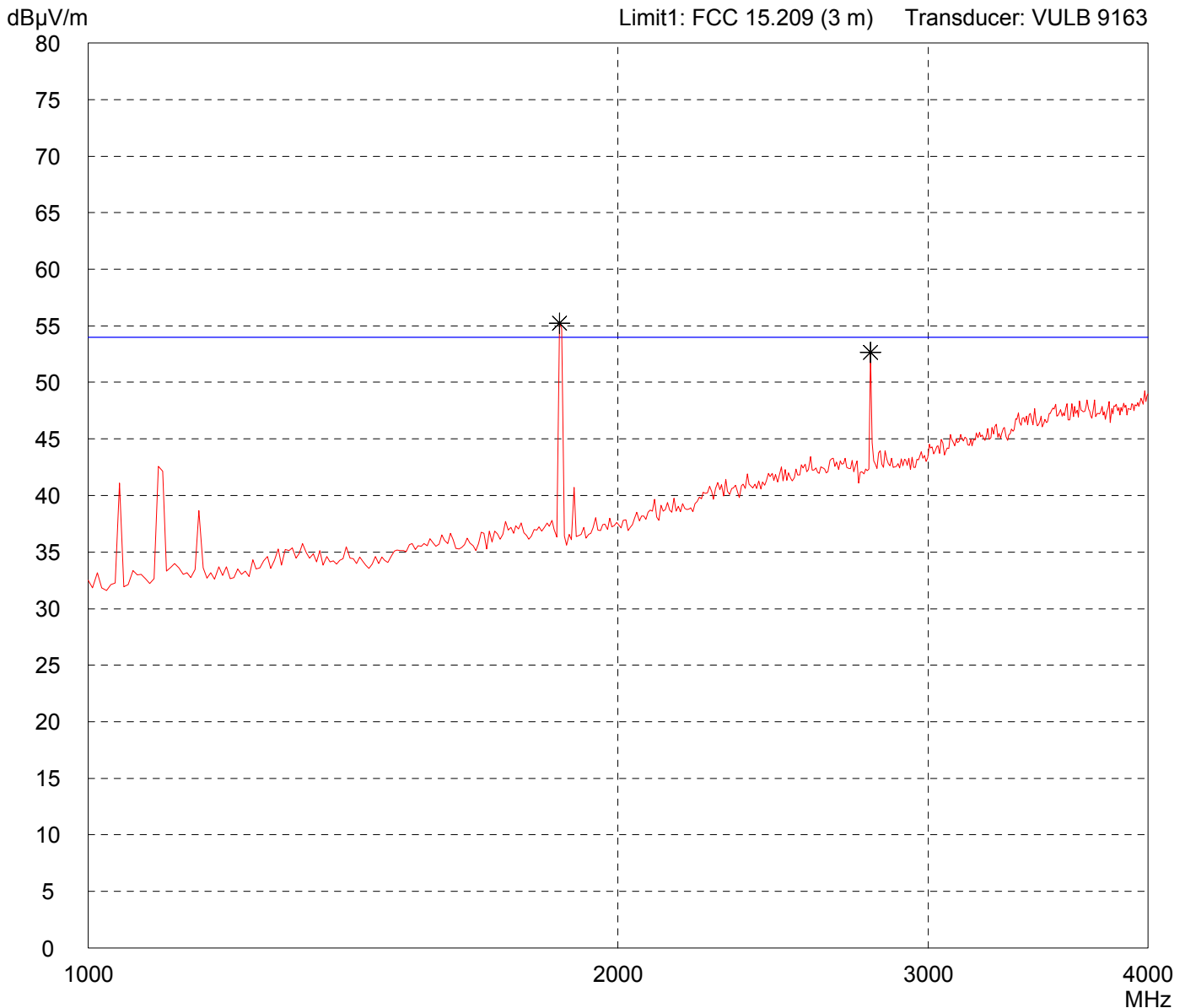
Project file:
56109-81425

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

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 927.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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Result:	Project file: 56109-81425-1
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Radiated Emission Test 1 GHz - 4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model:
4490LR-200M

Serial no.:
Test Sample #1

Applicant:
AEROCOMM, Inc.

Test site:
Fully anechoic room, cabin no. 2

Tested on:
**Test distance 3 metres
Vertical Polarization**

Date of test: 11/13/2008
Operator: J. Roidt

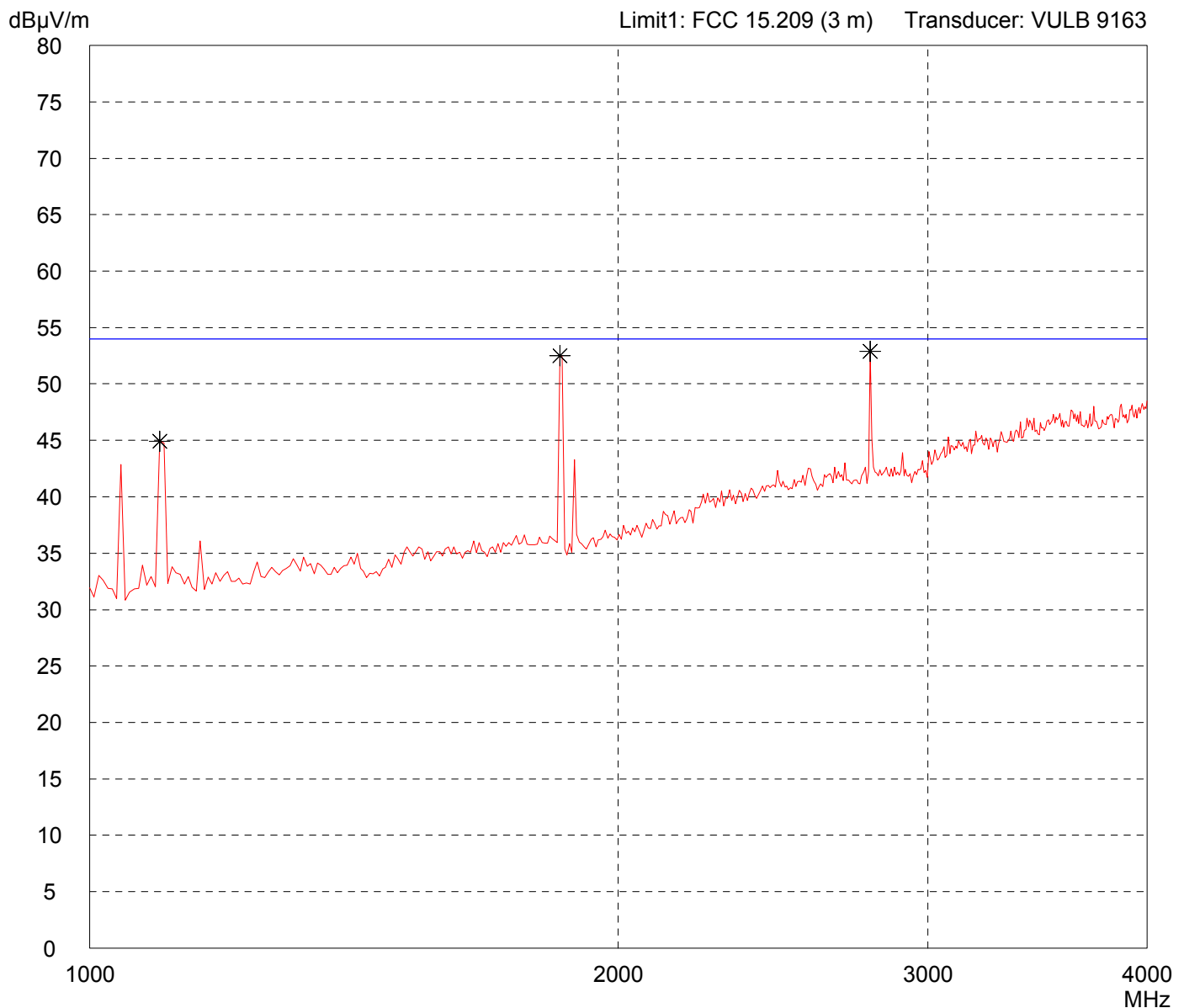
Test performed: automatically
File name: default.emi

Comment:

- Antenna ANT-DB1-RMS
- TX CW at 927.4 MHz
- Notch Filter tuned to fundamental frequency

Detector:
Peak

List of values:
Selected by hand



Result:

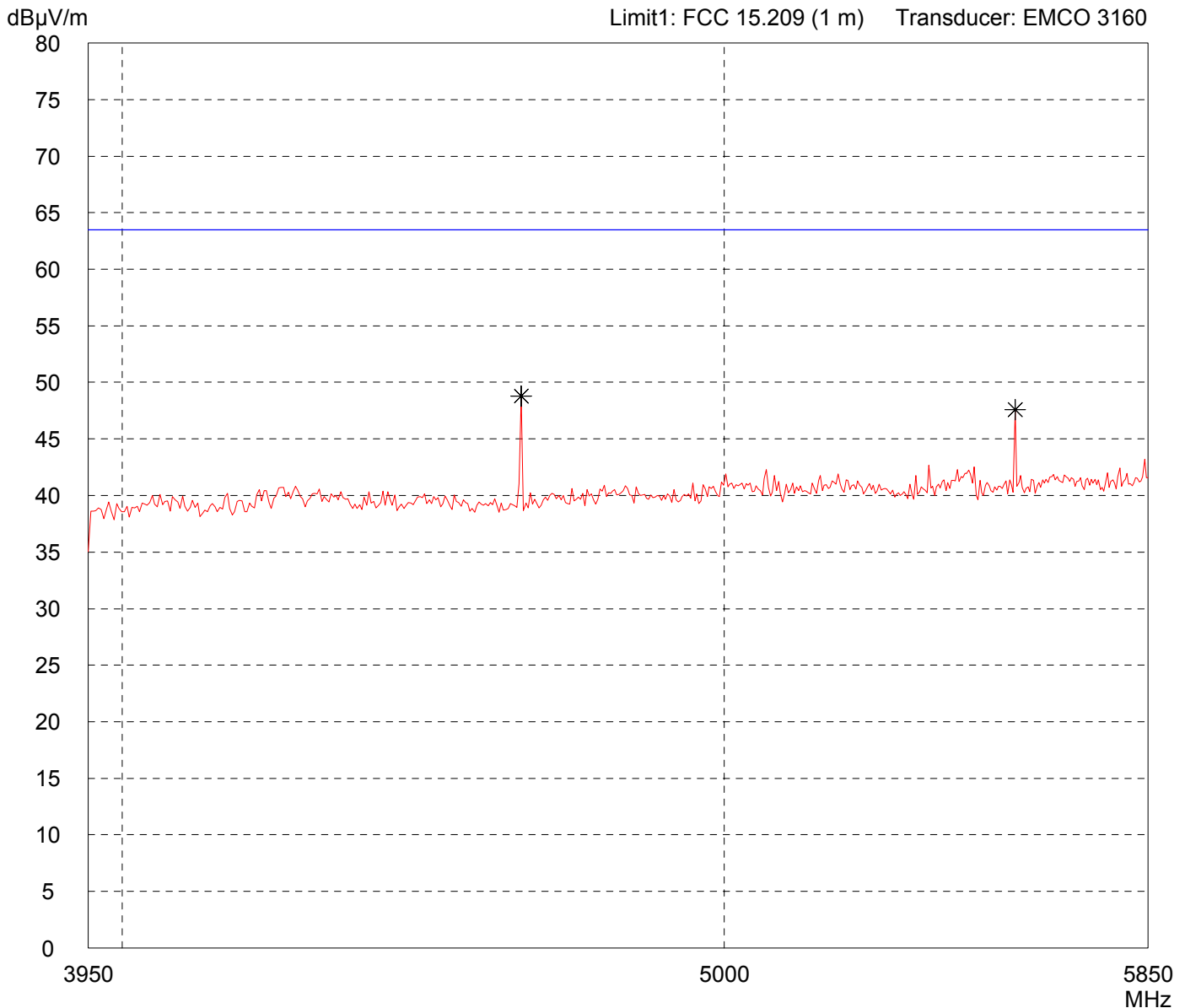
Project file:
56109-81425-1

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

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 927.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--

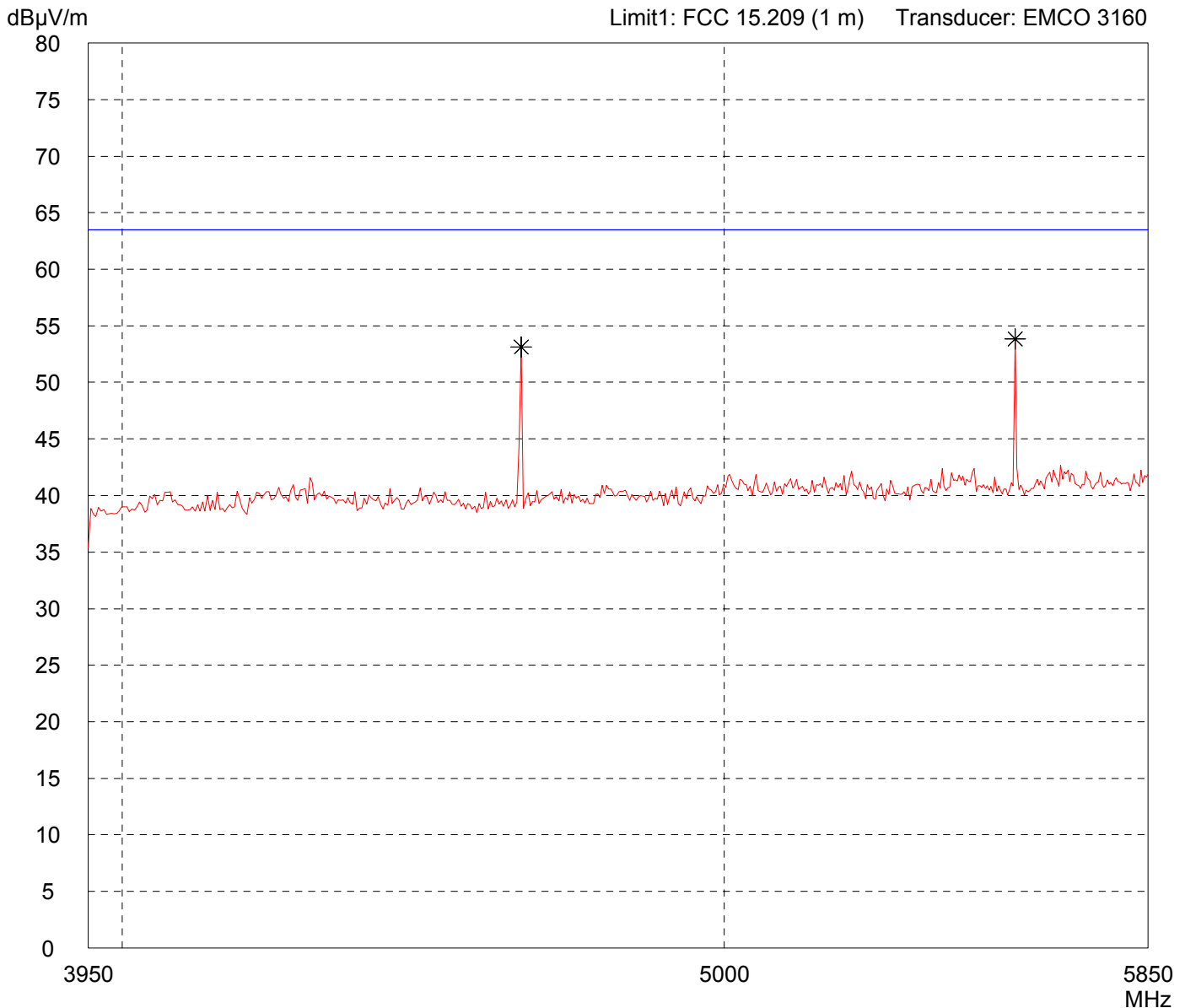


Result:	Project file: 56109-81425-1
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Radiated Emission Test 3.95 GHz - 5.85 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 927.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
--------------------------	--

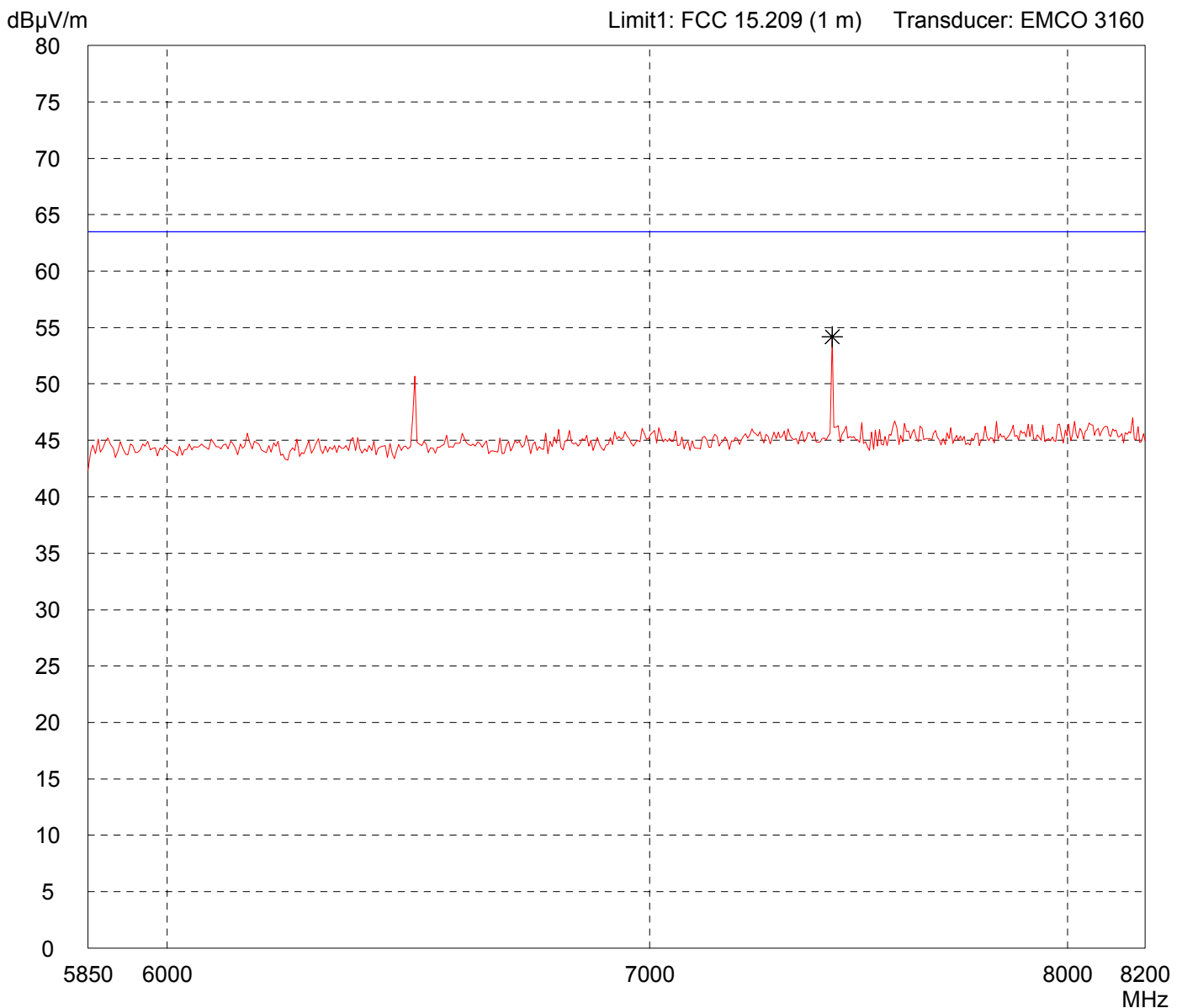


Result:	Project file: 56109-81425-1
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Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 927.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

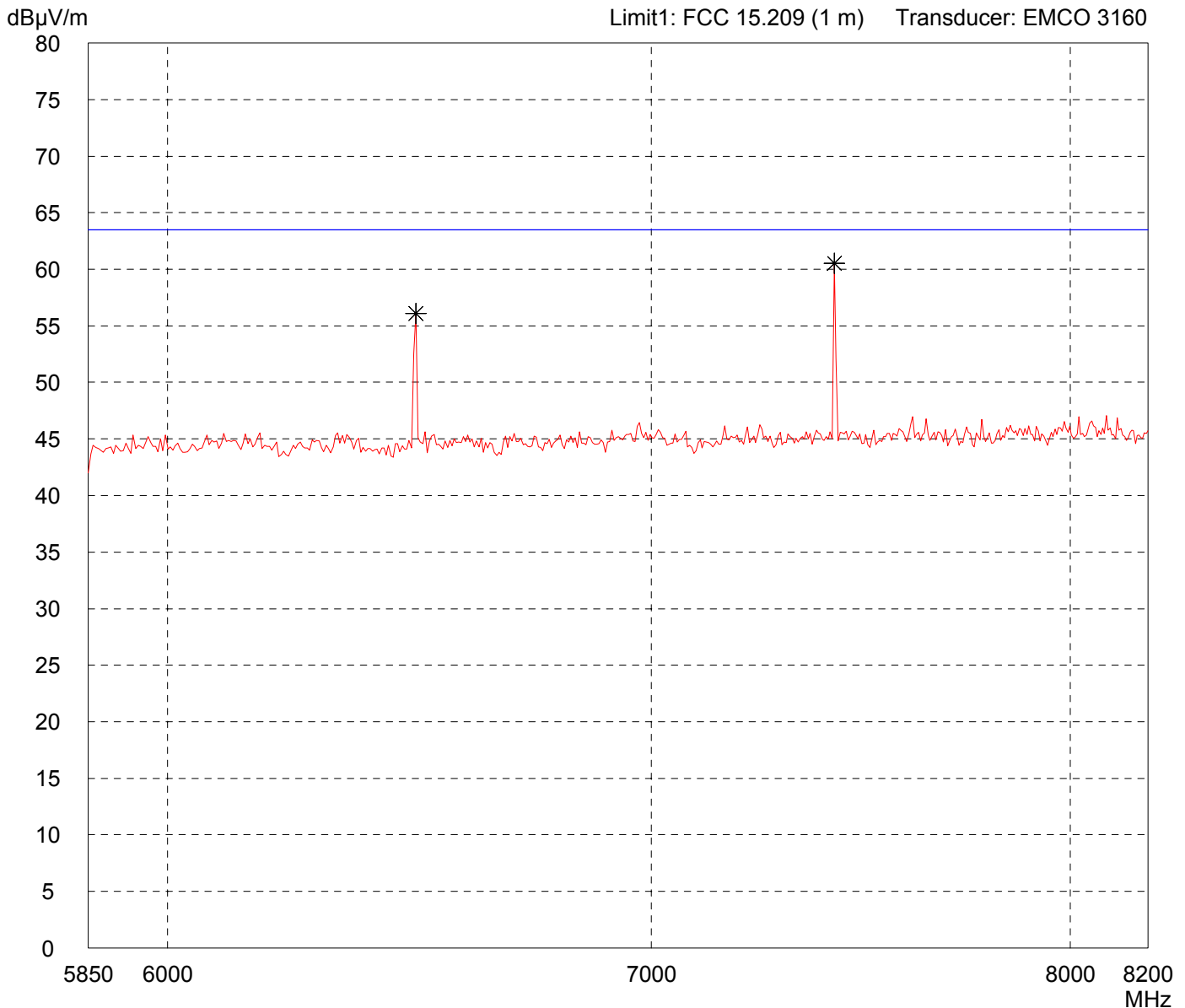


Result:	Project file: 56109-81425-1
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Radiated Emission Test 5.85 GHz - 8.2 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 927.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

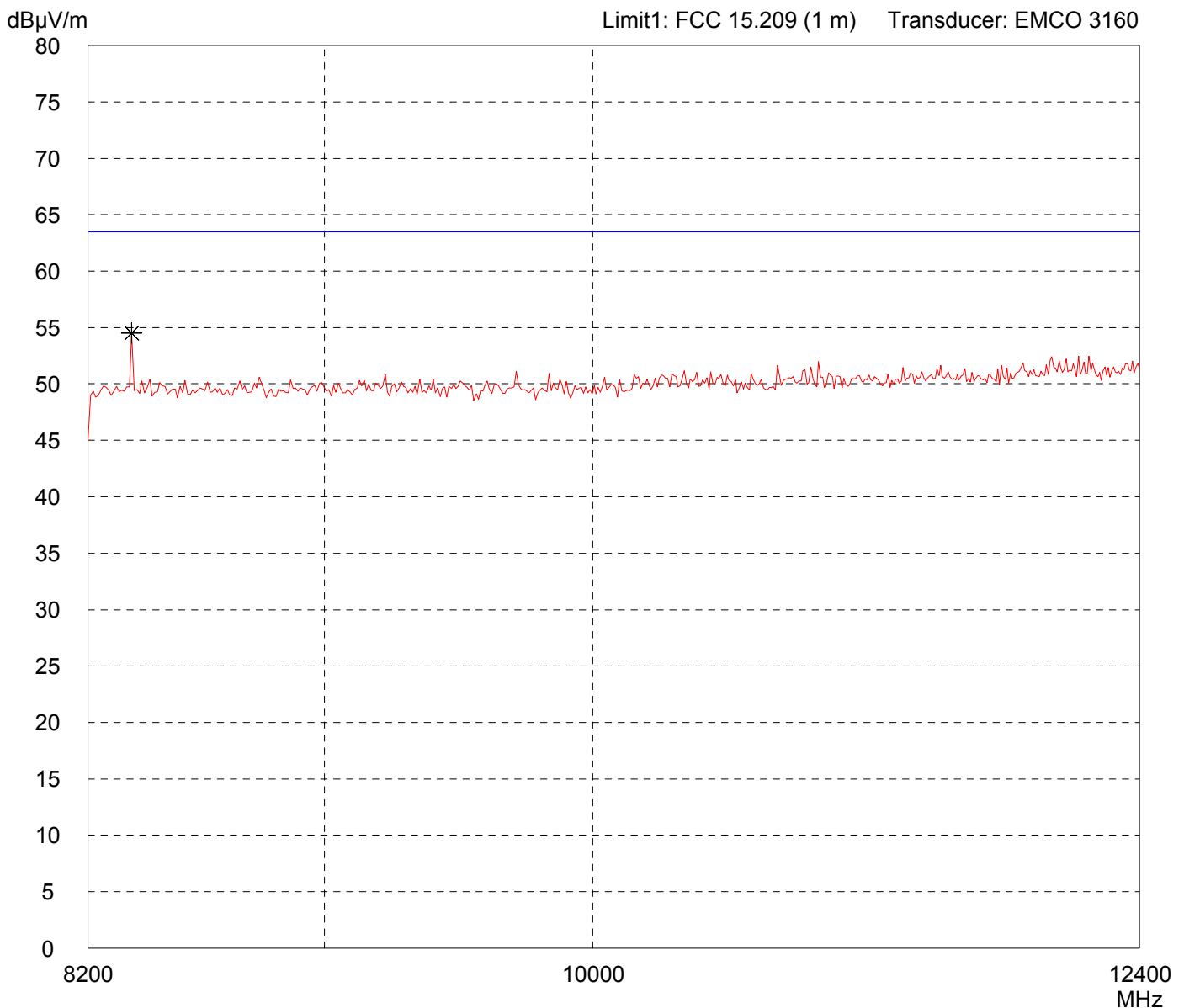
Detector: Peak	List of values: 10 dB Margin
	50 Subranges



Result:	Project file: 56109-81425-1
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Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M		Comment: - Antenna ANT-916-SP - TX CW at 927.4 MHz
Serial no.: Test Sample #1		
Applicant: AEROCOMM, Inc.		
Test site: Fully anechoic room, cabin no. 2		
Tested on: Test distance 1 meter Horizontal Polarization		
Date of test: 11/13/2008	Operator: J. Roidt	
Test performed: automatically	File name: default.emi	
Detector: Peak		List of values: 10 dB Margin 50 Subranges

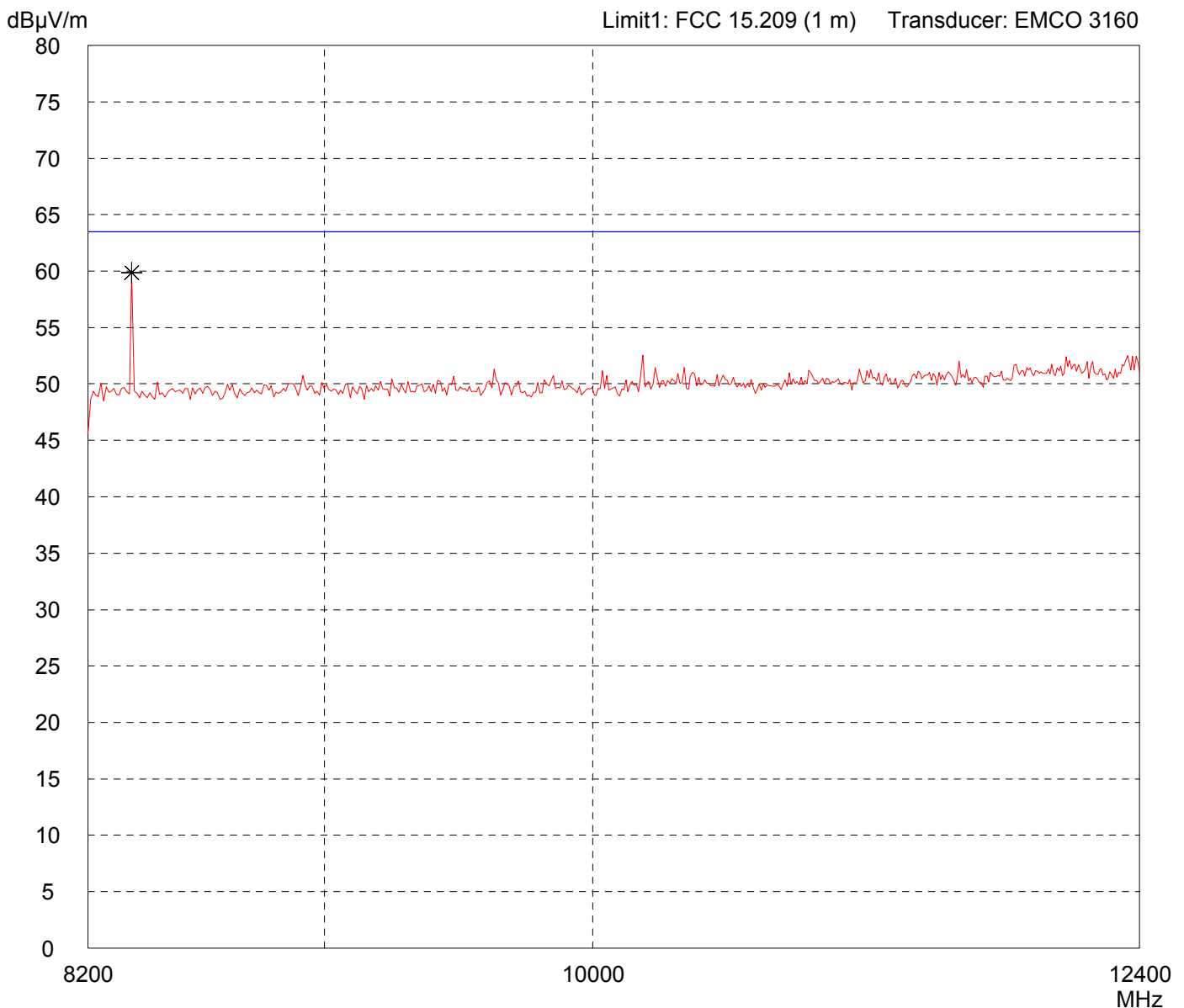


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Radiated Emission Test 8.2 GHz - 12.4 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - TX CW at 927.4 MHz
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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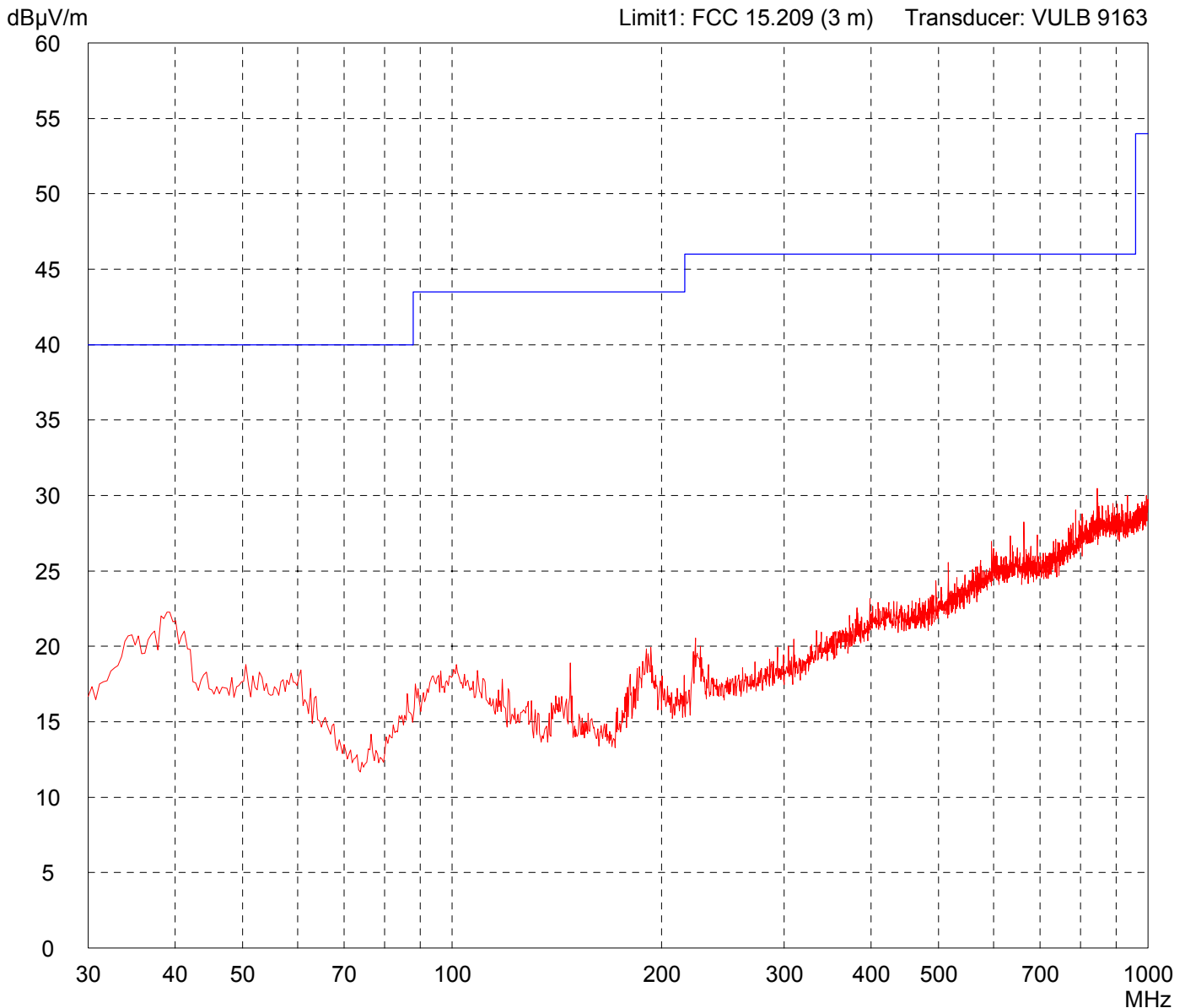


Result:	Project file: 56109-81425-1
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Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - RX Mode
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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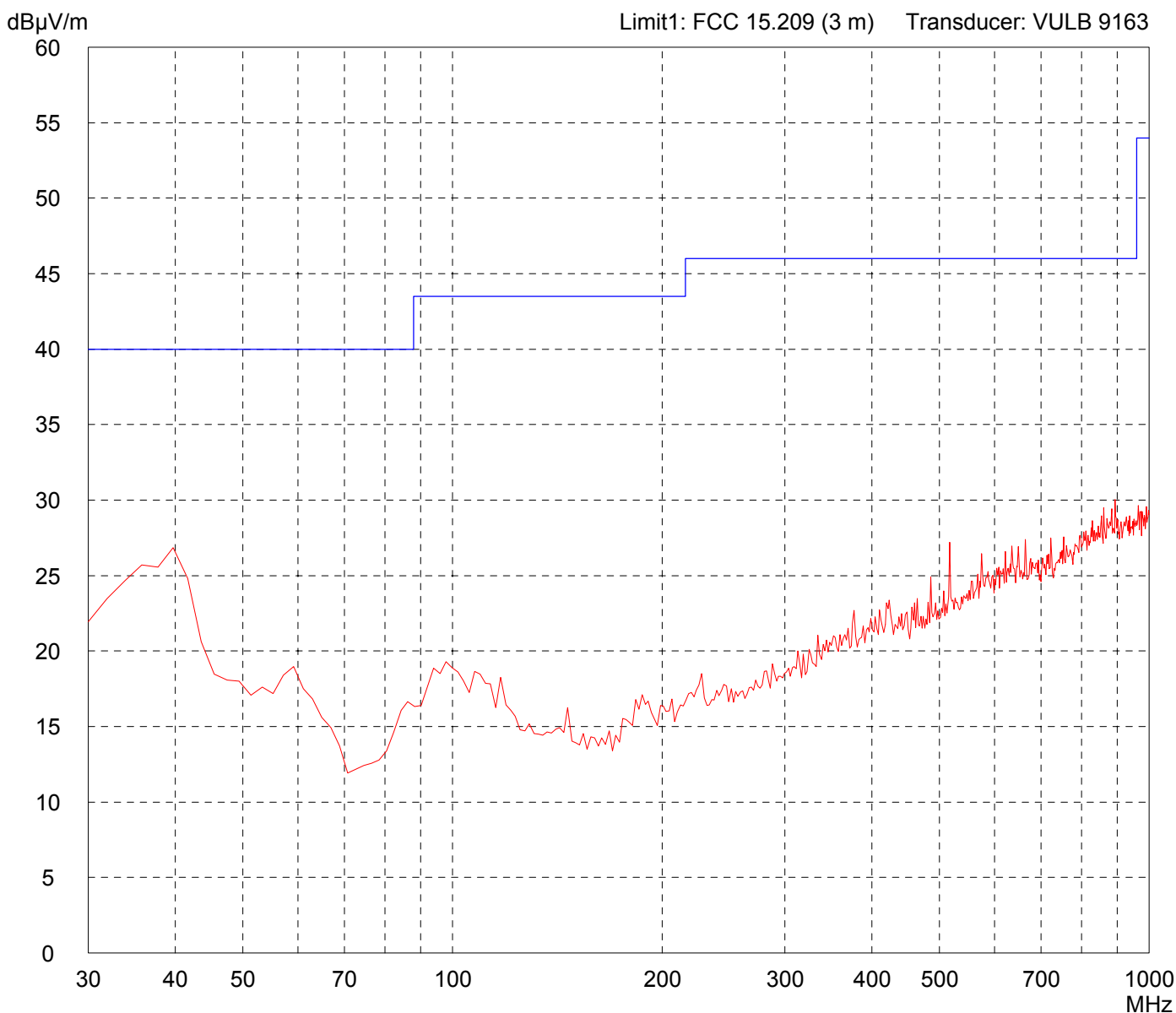


Result:	Project file: 56109-81425-1
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Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - RX Mode
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

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

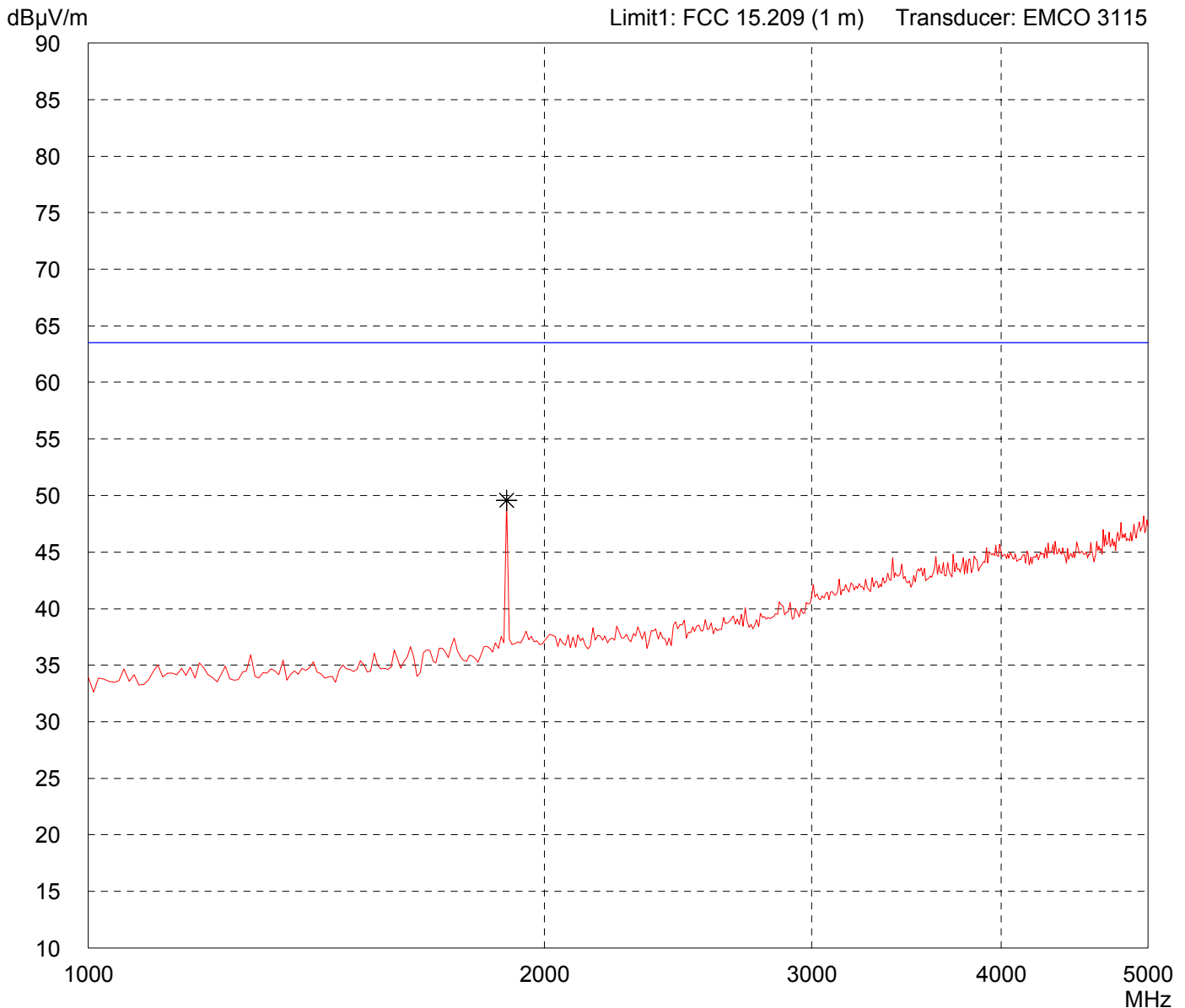


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Radiated Emission Test 1 GHz - 5 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - RX Mode
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 metre Horizontal Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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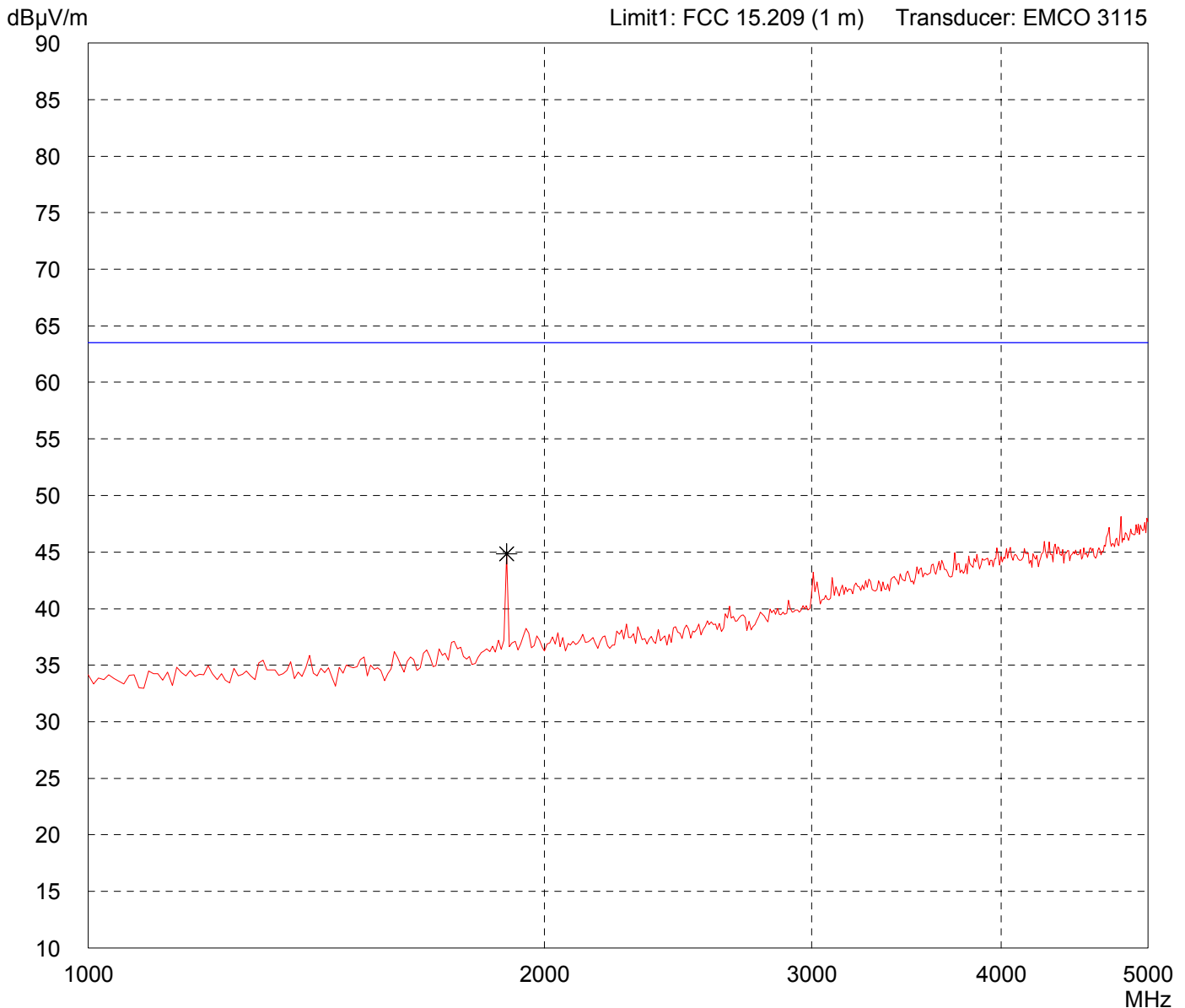


Result:	Project file: 56109-81425-1
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Radiated Emission Test 1 GHz - 5 GHz acc. to FCC Part 15 Subpart C (FAR)

Model: 4490LR-200M	Comment: - Antenna ANT-916-SP - RX Mode
Serial no.: Test Sample #1	
Applicant: AEROCOMM, Inc.	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 metre Vertical Polarization	
Date of test: 11/13/2008	Operator: J. Roidt
Test performed: automatically	File name: default.emi

Detector: Peak	List of values: Selected by hand
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Result:	Project file: 56109-81425-1
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