Straubing, July 27, 2004

T E S T - R E P O R T

No. 51905-40261

for

Moby D SLG D12

TAG Reader System

Applicant:	Siemens AG
Test Specification:	FCC Code of Federal Regulations, CFR 47, Part 15, Sections 15.205, 15.207, 15.209, and 15.225

Table of Contents

1. Administrative Data

Test item (EUT)	
Type designation	Moby D SLG D12
Serial number(s):	100753179.1
Type of equipment:	TAG Reader System
Parts/accessories:	
FCC-ID:	
Technical data	
Frequency range	13.553 - 13.567 MHz
Operational frequencies	13.56 MHz
Type of modulation	10K0A1D
Pulse frequency	N/A
Pulse width	N/A
Antenna	With internal antenna
Power supply	Siemens MOBY 6GT2 494-0AA00
	Serial No.: 10313260
Applicant: (full address)	Siemens AG, Fürth
	Würzburger Str. 121
	D-90766 Fürth
Contract identification:	---
Contact person:	Mr. Horst
Manufacturer:	Siemens AG

Application details	
Receipt of EUT:	14. April 2004
Date of test:	April - July 2004
Note:	
Responsible for testing:	Karl Roidt
Responsible for test report:	Karl 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. TTI-P-G 062/94-01
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:	 Mr. Johann Roidt
RESPONSIBLE FOR TESTING:	Mr. Karl Roidt
RESPONSIBLE FOR TEST REPORT:	Mr. Karl Roidt

SUMMARY OF TEST RESULTS
The tested sample complies with the requirements set forth in the **Code of Regulations CFR 47, Part 15, Sections 15.205, 15.207, 15.209 and 15.225**

3. Operation Mode of EUT

Continuously reading appropriate TAG

4. Configuration

Configuration of the EUT
AC/DC Adapter: Siemens MOBY 6GT2 494-0AA00 Serial No.: 10313260 With internal antenna

Cables connected to the EUT
Not applicable

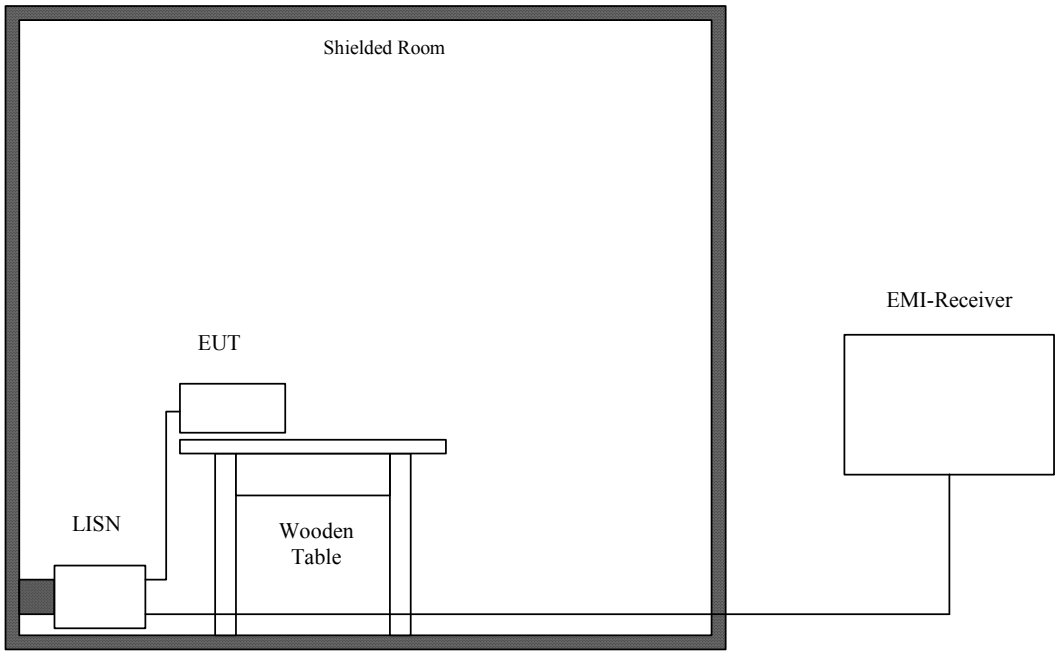
Peripheral devices connected to the EUT
Laptop PC Dell
AC/DC Adapter
Printer HP 2225C
AC Adapter Hayes

5. Measuring Methods

5.1. Conducted powerline emissions

Rules and Specifications:	Sections 15.107 & 15.207
Guide:	CISPR 22

Measurement Procedure:
In general conducted emission tests in the frequency range 0.15 - 30 MHz are required to be performed with quasi-peak and average detector. To simplify testing the following procedure is used: First the whole spectrum of emission caused by equipment under test (EUT) is recorded with detector set to peak. After that all emission levels having less margin than 20 dB to or exceeding the appropriate limit (in general average limit is 10 dB lower than quasi-peak limit) are retested with detector set to quasi-peak. If average limit is kept 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 has to be recorded.



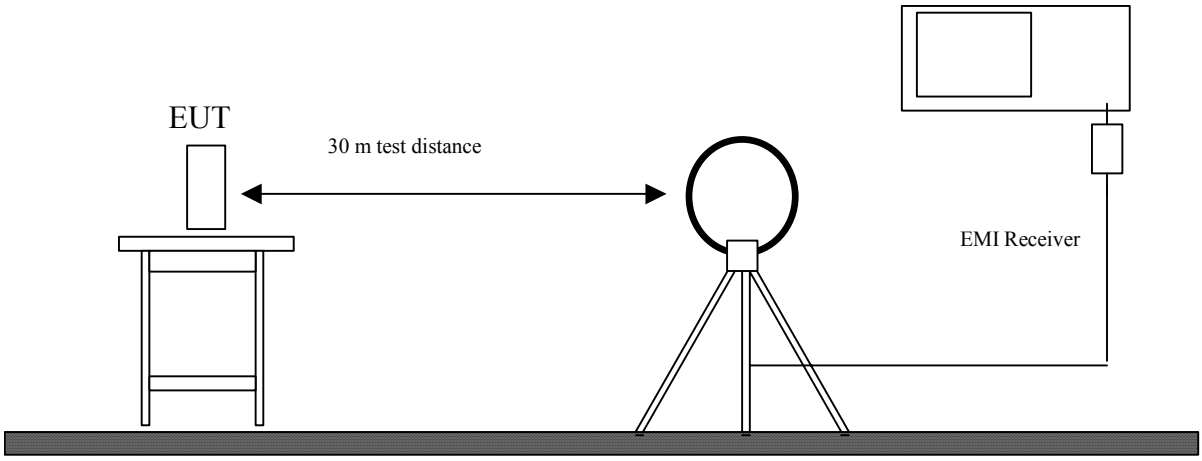
Test instruments used:

No.	Type	Model	Serial Number	Manufacturer
01	EMI Receiver	ESHS 10	860043/016	Rohde & Schwarz
02	LISN	ESH3-Z5	862770/021	Rohde & Schwarz
03	LISN	ESH-3-Z5	830952/025	Rohde & Schwarz
04	Shielded Room No. 4	---	3FD-100 544	Euroshield

5.2. Radiated Emission Measurement 9 kHz – 30 MHz

Rules and Specifications:	Sections 15.109 & 15.209
Guide:	ANSI C63.4 1997

Measurement Procedure:
Radiated emissions in the frequency range 9 kHz – 30 MHz were measured initially at a distance of 3 meters. A prescan at 3 meter distance were performed in a shielded room with the detector of the spectrum analyzer or EMI Receiver set to peak. 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. Final measurement is then performed at 30 meter distance. In case the regulation requires testing at other distances, the result will be extrapolated. The extrapolation factor is determined by making a second measurement at 10 meter distance. In cases of very low emissions measurements are performed at shorter distances and results are extrapolated to the required distance. The provisions of 15.31 (d) apply. According to section 15.209 (d) final measurementis performed with the detector set to Quasi Peak except for the frequency bands 9 – 90 kHz and 110 – 490 kHz where average detector is employed.



Test instruments used:

No.	Type	Model	Serial Number	Manufacturer
01	Test receiver	ESH 3	880112/032	Rohde & Schwarz
02	Loop antenna	HFH2-Z2	882964/1	Rohde & Schwarz
03	Open Field Test Site	No. 1	N/A	Senton

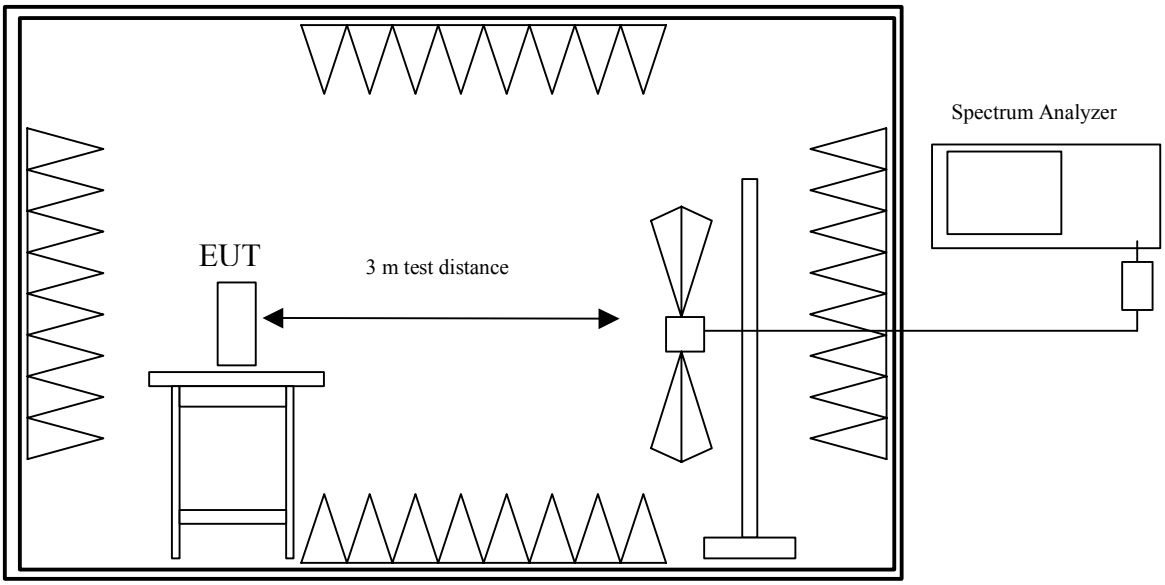
5.3. Field Strength of Emissions, Prescans in a fully-anechoic Room

Rules and Specifications:	Sections 15.109 & 15.209
Guide:	ANSI C63.4 1997

Measurement Procedure:

Radiated emissions are measured over the frequency range from 30 MHz to the 5th harmonic of the maximum frequency of the EUT.

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. For final testing an open-area test-site was used. During the tests the EUT is rotated all around to find the maximum levels of emissions. The cables and equipment were placed and moved within the range of position likely to find their maximum emissions.



Fully anechoic chamber

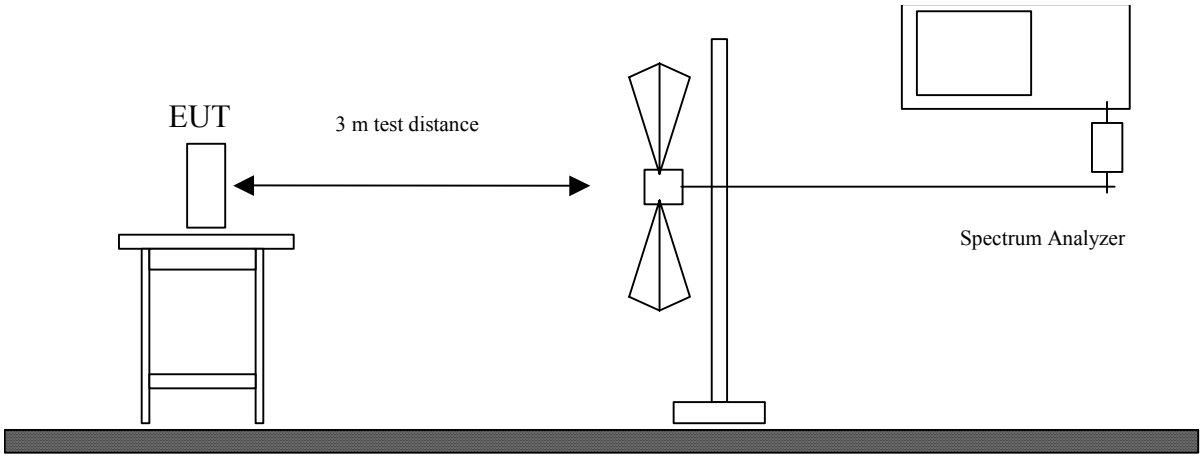
Test instruments used:

No.	Type	Model	Serial Number	Manufacturer
01	Spectrum Analyzer	FSP 30	100063	Rohde & Schwarz
113	Preamplifier	CPA9231A	3393	Schaffner
141	Biconical antenna	HK 116	829708/006	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

5.4. Radiated Emission Measurement at Open Area Test Site

Rules and Specifications:	Sections 15.109 & 15.209
Guide:	ANSI C63.4 1997

Measurement Procedure:
Radiated emissions are measured in the frequency range 1 GHz to 8 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:

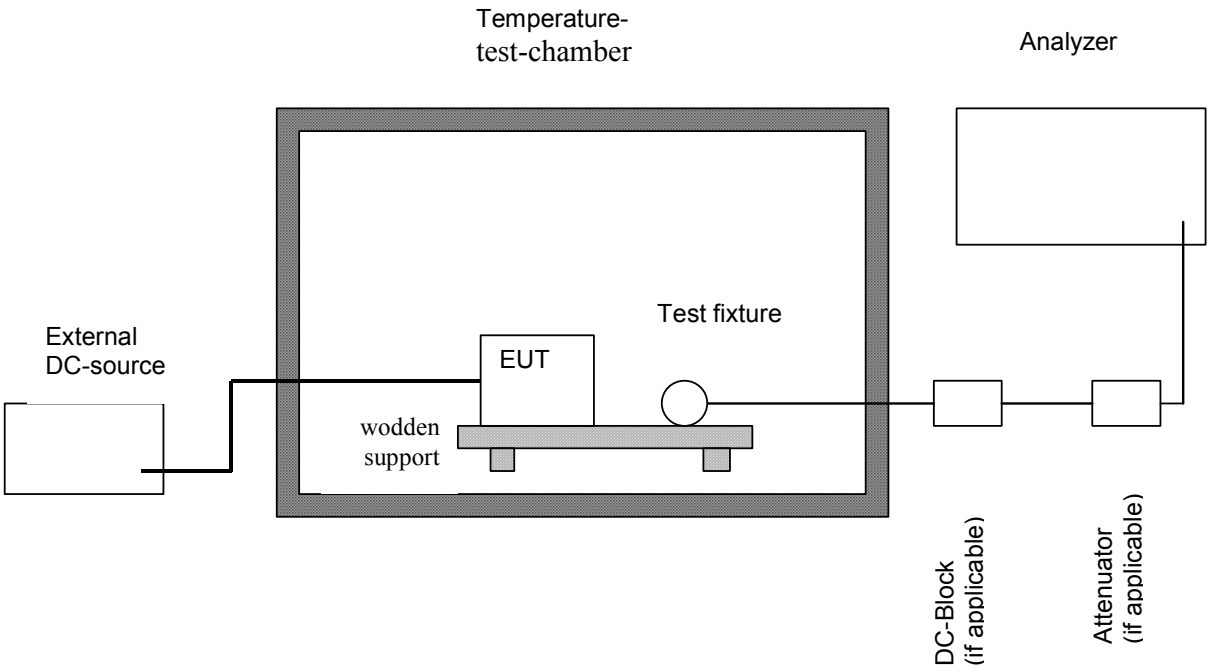
No.	Type	Model	Serial Number	Manufacturer
01	EMI Receiver	ESVP	881414/009	Rohde & Schwarz
141	Biconical antenna	HK 116	829708/006	Rohde & Schwarz
143	Log. periodic antenna	3147	9112-1054	EMCO
145	Horn antenna	3115	9508-4553	EMCO
146	Horn antenna set	3160-03/-09	9112-1003	EMCO
114	Preamplifier 1-8 GHz	AFS3-00100800-32-LN	847743	Miteq
115	Preamplifier 8-18 GHz	ACO/180-3530	32641	CTT
003	Open Field Test Site	No. 1	N/A	Senton

5.5. Frequency tolerance of the carrier signal

Rules and Specifications:	Sections 15.225
Guide:	

Measurement Procedure:

The frequency tolerance of the carrier signal is maintained over a temperature variation of –20 degrees ot +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 detrees C. For battery operated equipment, the test is performed using a new battery.



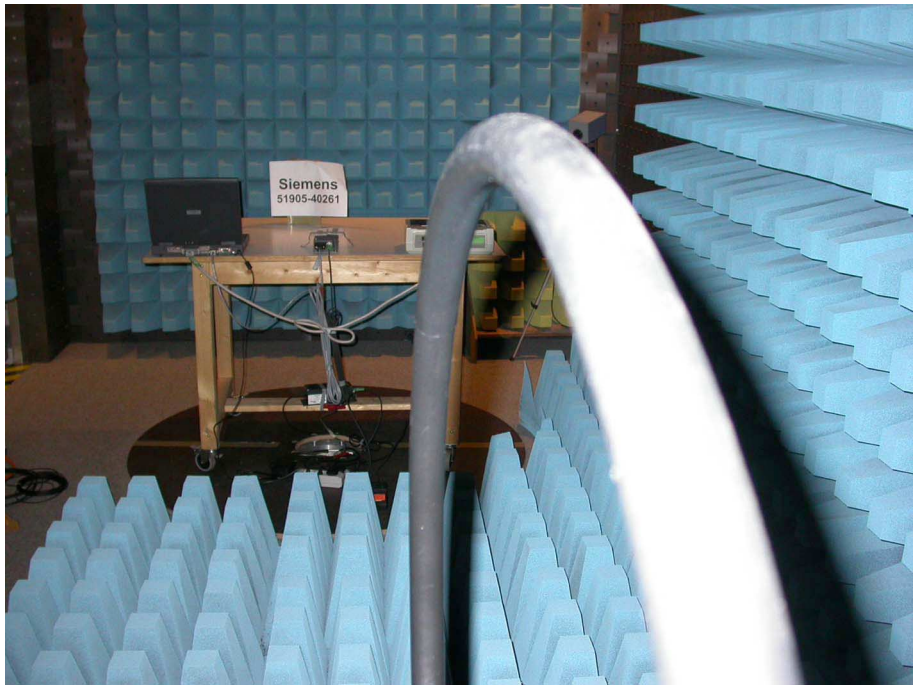
No.	Type	Model	Serial Number	Manufacturer
007	Temperature test chamber	HT4010	07065550	Heraeus
017	DC power supply	NGSM 32/10	203	Rohde & Schwarz
025	DC-block	7006	A2798	Weinschel
101	EMI test receiver	ESMI	839379/013 839587/006	Rohde & Schwarz
121	Attenuator	4776-10	9412	Narda
166	Test probe	TP01	001	Senton

6. Photographs Taken During Testing

Test setup for conducted power line emission measurement

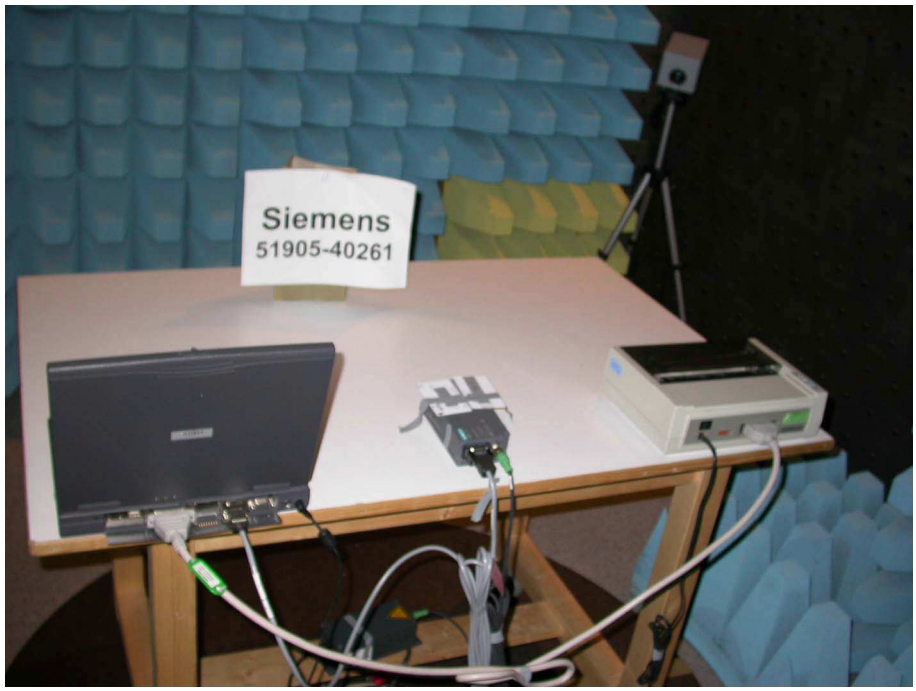
Test setup for conducted power line emission measurement

Test setup for spurious radiation measurement



Test setup for radiated emission measurement (fully anechoic room)

Test setup for radiated emission measurement (fully anechoic room)



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

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

7. List of Measurements

FCC Part 15			
Section(s):	**Test**	**Page(s)**	**Result**
15.205	Restricted Bands		
15.207	AC Powerline Emissions	---	Pass
15.109	Radiated Spurious emissions	---	Pass

Conducted Powerline Emission Measurement

Rules and Specifications:	15.107, 15.207		
Guide:	CISPR 22		
Limit:	Frequency of Emission (MHz)	Conducted Limit (dBuV)	
		Quasi-peak	Average
	0.15-0.5 0.5 – 5 5 - 30	66 to 56 56 60	56 to 46 46 50

Test Site:	Radio Lab.
Distance:	Conducted Measurement
Date of Test:	28 Juni 2004

Frequency (MHz)	Detector	Analyzer Reading (dBµV)	Correction Factor (dB)	Final Value (dBµV)	Limit (dBµV)	Margin (dB)
0.280	AV	33.9	0	33.9	50.8	**16.9**
0.845	AV	32.2	0	32.2	46.0	**13.8**
1.405	AV	32.0	0	32.0	46.0	**14.0**
2.110	AV	30.4	0	30.4	46.0	**15.6**
13.565	AV	46.6	0	46.6	50.0	**3.4**

Sample calculation of Final values:

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

Test Results:	Pass	

Spurious Radiation Measurement 9 kHz – 30 MHz

Rules and Specifications:	15.109, 125.209 Radiated Emission Limits		
Guide:	ANSI C63.4		
Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:		
	Frequency of Emission (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
	0.009.0.490	2400/F(kHz)	300
	0.490-1.705	24000/F(kHz)	30
	1.705 – 30	30	30

Tested Frequency:	
Test Site:	Open Area Test Site
Distance:	30 Meter

Transmitting continuously

Frequency (MHz)	Detector	Analyzer Reading (dBµV)	Correction Factor (dB/m)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
13.560	QP	23.7	20.0	43.7	84.0	**40.3**
27.120	QP	1.6	20.0	21.6	29.5	**7.9**

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

Sample calculation of erp values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Correction Factor (dB/m)

Test Results:	Pass	

Spurious Radiation Measurement 9 kHz – 30 MHz

Rules and Specifications:	15.109, 125.209 Radiated Emission Limits		
Guide:	ANSI C63.4		
Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:		
	Frequency of Emission (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
	0.009.0.490	2400/F(kHz)	300
	0.490-1.705	24000/F(kHz)	30
	1.705 – 30	30	30

Tested Frequency:	
Test Site:	Open Area Test Site
Distance:	30 Meter

Reading transponder continuously

Frequency (MHz)	Detector	Analyzer Reading (dBµV)	Correction Factor (dB/m)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
13.560	QP	23.0	20.0	43.0	84.0	**41.0**
27.120	QP	1.0	20.0	21.0	29.5	**8.5**

Sample calculation of erp values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Correction Factor (dB/m)

Test Results:	Pass	

Spurious Radiation Measurement

Rules and Specifications:	15.109, 125.209 Radiated Emission Limits	
Guide:	ANSI C63.4	
Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:	
	Frequency of Emission (MHz)	Field Strength (microvolts/meter)
	30 - 88	100
	88 - 216	150
	216 - 960	200
	Above 960	500

Tested Frequency:	
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)
40.680	QP	vertical	22.3	11.8	34.1	40.0	**5.9**
54.240	QP	vertical	25.5	10.3	35.8	40.0	**4.2**
67.800	QP	vertical	28.2	9.7	37.9	40.0	**2.1**
108.480	QP	vertical	25.2	11.4	36.6	43.5	**6.9**
271.200	QP	vertical	15.8	18.8	34.6	46.0	**11.4**
515.280	QP	vertical	10.9	21.0	31.9	46.0	**14.1**
542.400	QP	vertical	13.2	21.3	34.5	46.0	**11.5**
623.760	QP	vertical	11.3	23.2	34.5	46.0	**11.5**

Sample calculation of erp values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Correction Factor (dB/m)

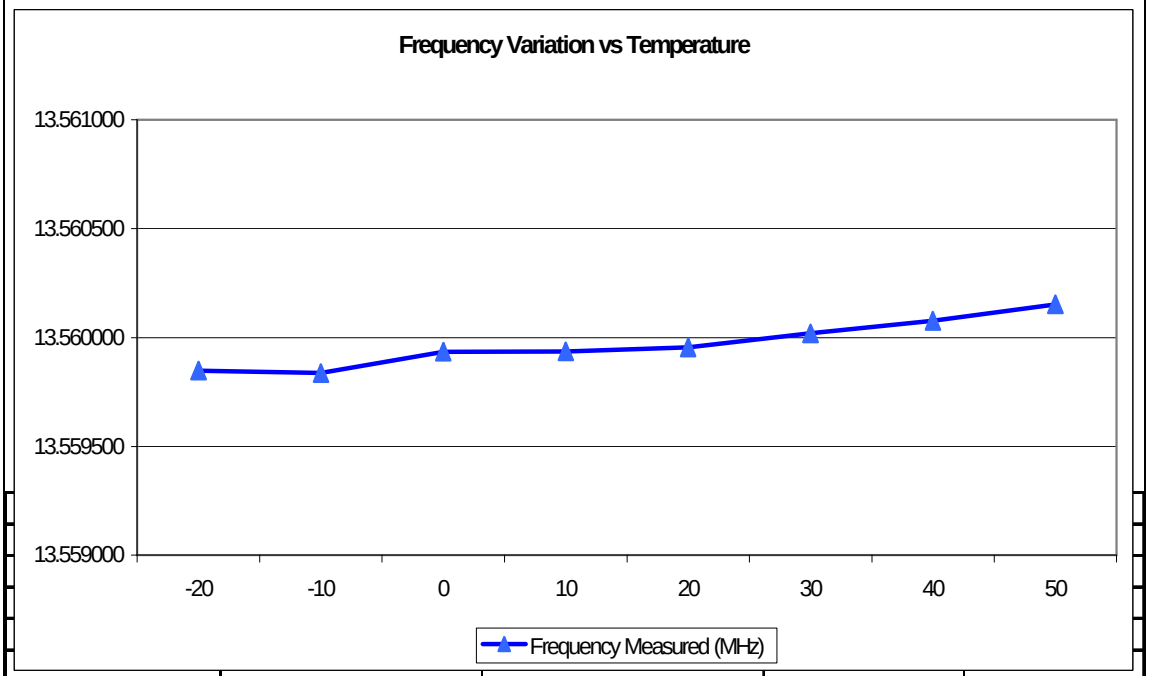
Test Results:	Pass	

Measurement of Frequency Stability vs Temperature

Rules and Specifications:	Section 74.861 (e) (4), 2.1055
Limits and Requirements:	The frequency tolerance of the transmitter shall be 0.005 %
Nominal Frequency of EUT:	13.559861MHz

Temperature Variation Table

Temperature (°C)	Nominal Frequency (MHz)	Frequency Measured (MHz)	Frequency Tolerance (ppm)	Limit (ppm)
-20	13.559861	13.559848	-0.96	50
-10	13.559861	13.559836	-1.84	50
0	13.559861	13.559935	5.46	50
10	13.559861	13.559936	5.53	50
20	13.559861	13.559955	6.93	50
30	13.559861	13.560019	11.65	50
40	13.559861	13.560077	15.93	50
50	13.559861	13.560152	21.46	50



Test Results:	Pass	

Measurement of Frequency Stability vs Supply Voltage

Rules and Specifications:	Sections 74.861 (e) (4), 2.1055 (d)
Limits and Requirements:	The frequency tolerance of the transmitter shall be 0.005 %
Nominal Frequency of EUT:	13.559861 MHz
Battery end-point:	

Voltage Variation Table

Supply Voltage (V)	Nominal Frequency (MHz)	Frequency Measured (MHz)	Frequency Tolerance (ppm)	Limit (ppm)
20.4	13.559861	13.559929	5.01	50
24.0	13.559861	13.559955	6.93	50
27.6	13.559861	13.559974	8.33	50

Test Results:	Pass	

8. Referenced Regulations

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

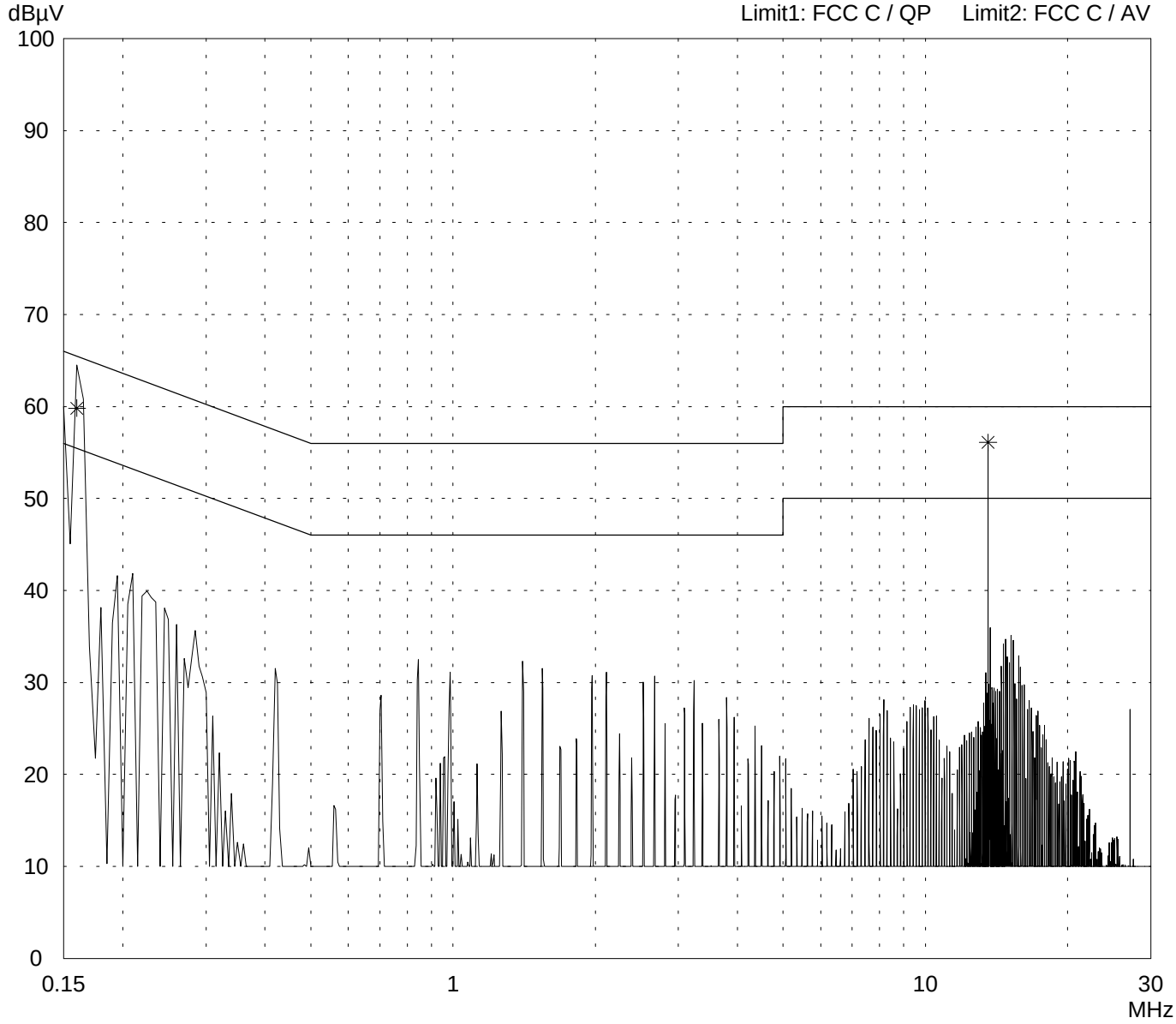
☒	FCC Part 2	Code of Federal Regulations Part 2 Frequency allocationand radio treaty matters; General rules and regulations	October 01, 1999
☐	FCC Part 15 Subpart A	Code of Regulations Part 15 (Radio Frequency Devices), Subpart A (General) of the Federal Communication Commission (FCC)	October 20, 1997
☐	FCC Part 15 Subpart B	Code of Regulations Part 15 (Radio Frequency Devices), Subpart B (Unintentional Radiators) of the Federal Communication Commission (FCC)	October 20, 1997
☐	FCC Part 15 Subpart C	Code of Regulations Part 15 (Radio Frequency Devices), Subpart C (Intentional Radiators) of the Federal Communication Commission (FCC)	October 20, 1997
☒	FCC Part 74 Subpart H	Code of Regulations Part 15 (Radio Frequency Devices), Subpart H (Low Power Auxiliary Stations) of the Federal Communication Commission (FCC)	October 20, 1997
☒	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 - 40 GHz	October, 1992
☐	RSS-210	Radio Standards Specification RSS-210 Issue 2 for Low Power Licence-Exempt Radiocommuniction Devices of Industry Canada	February 24, 1996

Charts taken during testing

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

Model: Moby D SLG D12	Mode: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Shielded room, cabin no. 2	i-code datacoding fast 1/1
Tested on: Linecord 230 V AC power supply EUT Phase L1	with TAG
Date of test: 06/28/2004 / Operator: K. Roidt	Supply Voltage: 230 V AC original power supply power supply grounded
Test performed: automatically / File name:	

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



Result: Limit kept	Project file: 51905-40261

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: Moby D SLG D12	Mode: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Shielded room, cabin no. 2	i-code datacoding fast 1/1
Tested on: Linecord 230 V AC power supply EUT Phase L1	with TAG
Date of test: 06/28/2004 Operator: K. Roidt	Supply Voltage: 230 V AC original power supply power supply grounded
Test performed: automatically File name:	

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

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.16	59.8		59.8	65.5	
13.56	56.1		56.1	60.0	

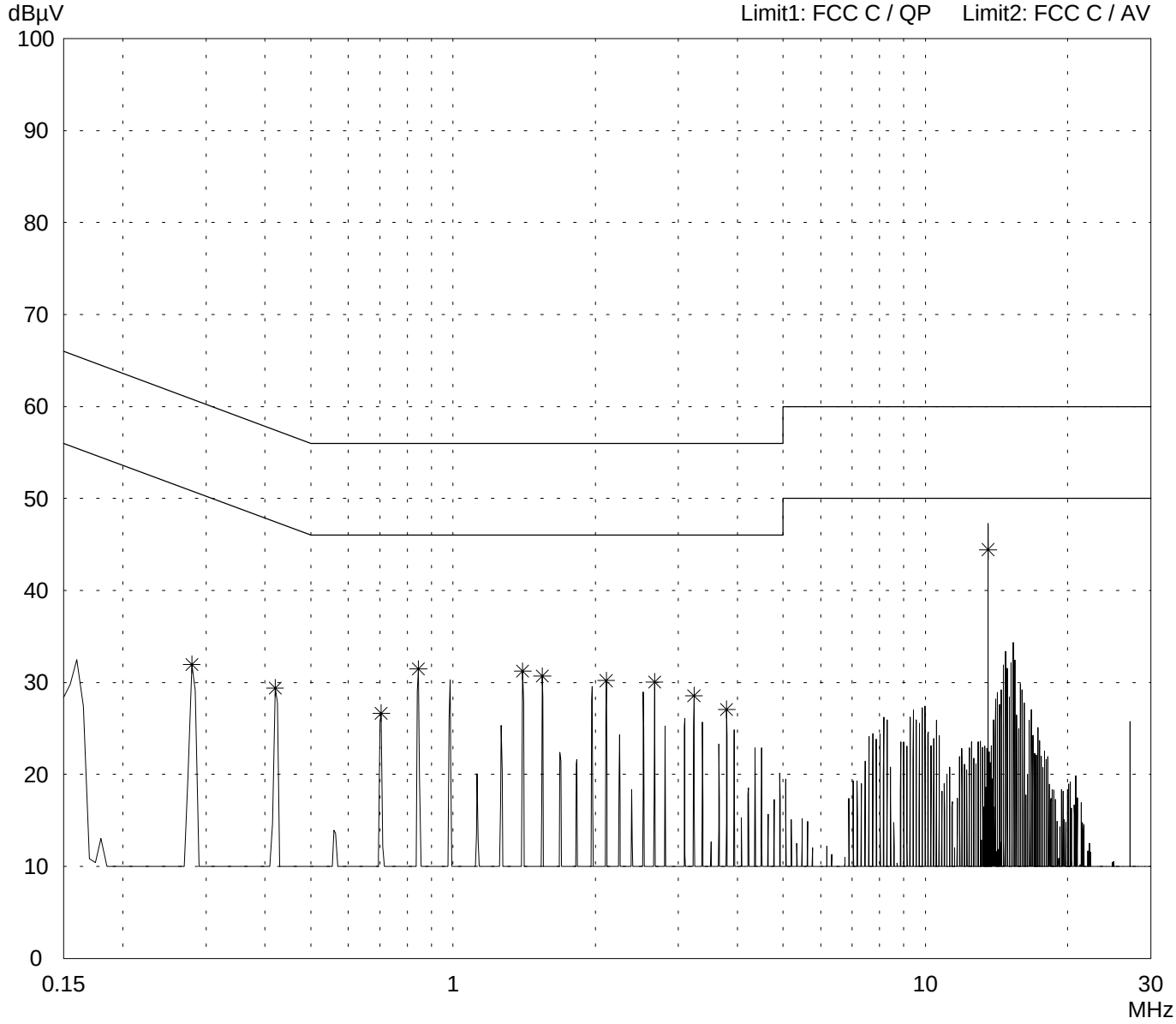
Result: Limit kept	Project file: 51905-40261

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: Moby D SLG D12	Mode: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Shielded room, cabin no. 2	i-code datacoding fast 1/1
Tested on: Linecord 230 V AC power supply EUT Phase L1	with TAG
	Supply Voltage: 230 V AC original power supply power supply grounded
Date of test: 06/28/2004 Operator: K. Roidt	
Test performed: automatically File name:	

Detector: Average / Final Results: AV	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 51905-40261 Page 32 of 43 Pages

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

Model:
Moby D SLG D12

Serial no.:
SN 100753179.1

Applicant:
Siemens AG

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord 230 V AC power supply EUT
Phase L1

Date of test: 06/28/2004
Operator: K. Roidt

Test performed: automatically
File name:

Mode:
FCC testsetup No. 1

modulation 15 %

outputpower 1 W

i-code datacoding fast 1/1

with TAG

Supply Voltage: 230 V AC original power supply
power supply grounded

Detector:
Average / Final Results: AV

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.280	32.0		32.0	50.8	
0.420	29.4		29.4	47.4	
0.705	26.7		26.7	46.0	
0.845	31.5		31.5	46.0	
1.405	31.2		31.2	46.0	
1.545	30.7		30.7	46.0	
2.110	30.2		30.2	46.0	
2.670	30.1		30.1	46.0	
3.235	28.6		28.6	46.0	
3.795	27.1		27.1	46.0	
13.565	44.5		44.5	50.0	

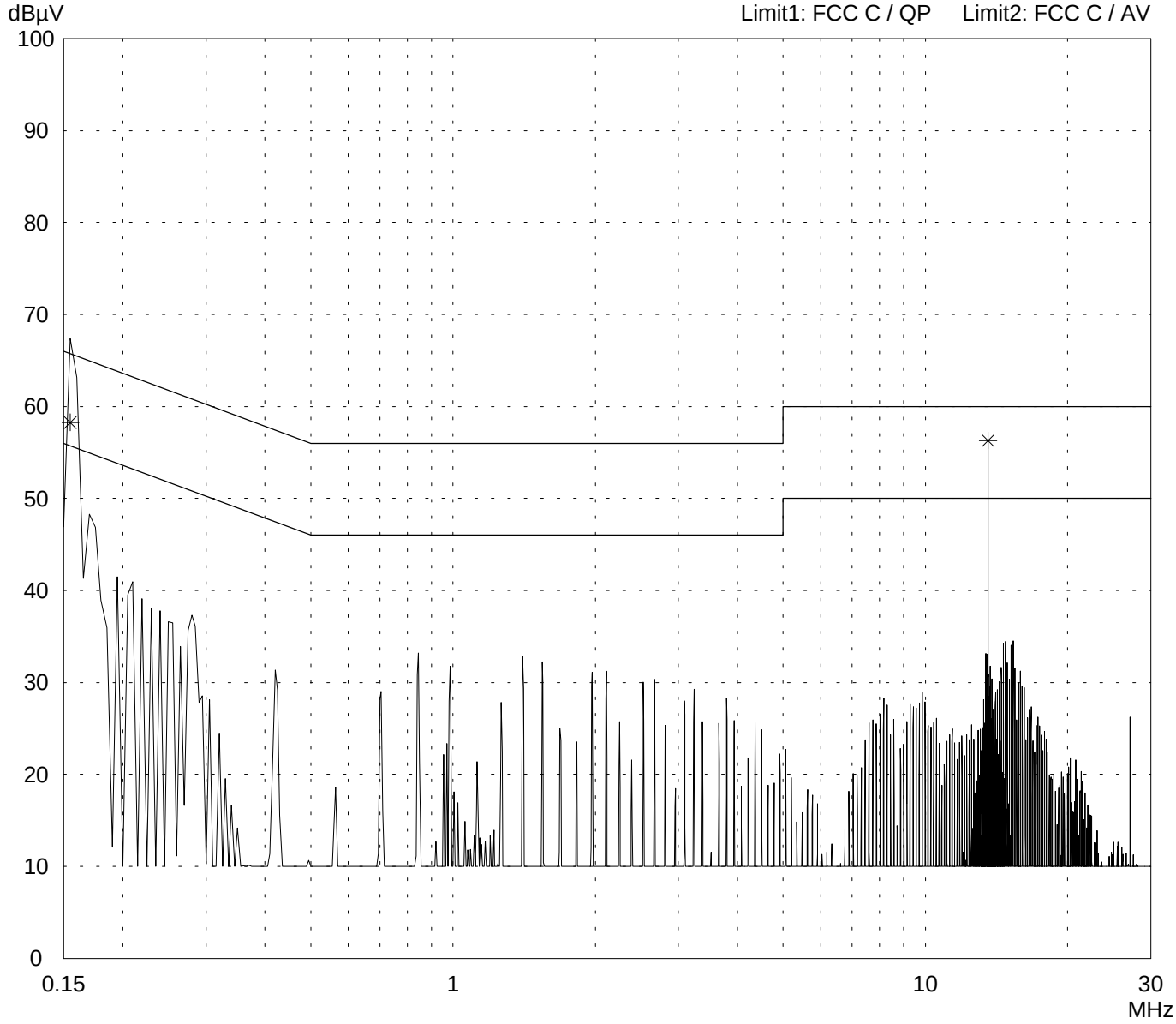
Result:
Limit kept

Project file:
51905-40261

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

Model: Moby D SLG D12	Mode: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Shielded room, cabin no. 2	i-code datacoding fast 1/1
Tested on: Linecord 230 V AC power supply EUT Phase N	with TAG
	Supply Voltage: 230 V AC original power supply power supply grounded
Date of test: 06/28/2004 Operator: K. Roidt	
Test performed: automatically File name:	

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



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

Model: Moby D SLG D12	Mode: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Shielded room, cabin no. 2	i-code datacoding fast 1/1
Tested on: Linecord 230 V AC power supply EUT Phase N	with TAG
Date of test: 06/28/2004 Operator: K. Roidt	Supply Voltage: 230 V AC original power supply power supply grounded
Test performed: automatically File name:	

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

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.155	58.3		58.3	65.7	
13.560	56.3		56.3	60.0	

Result: Limit kept	Project file: 51905-40261

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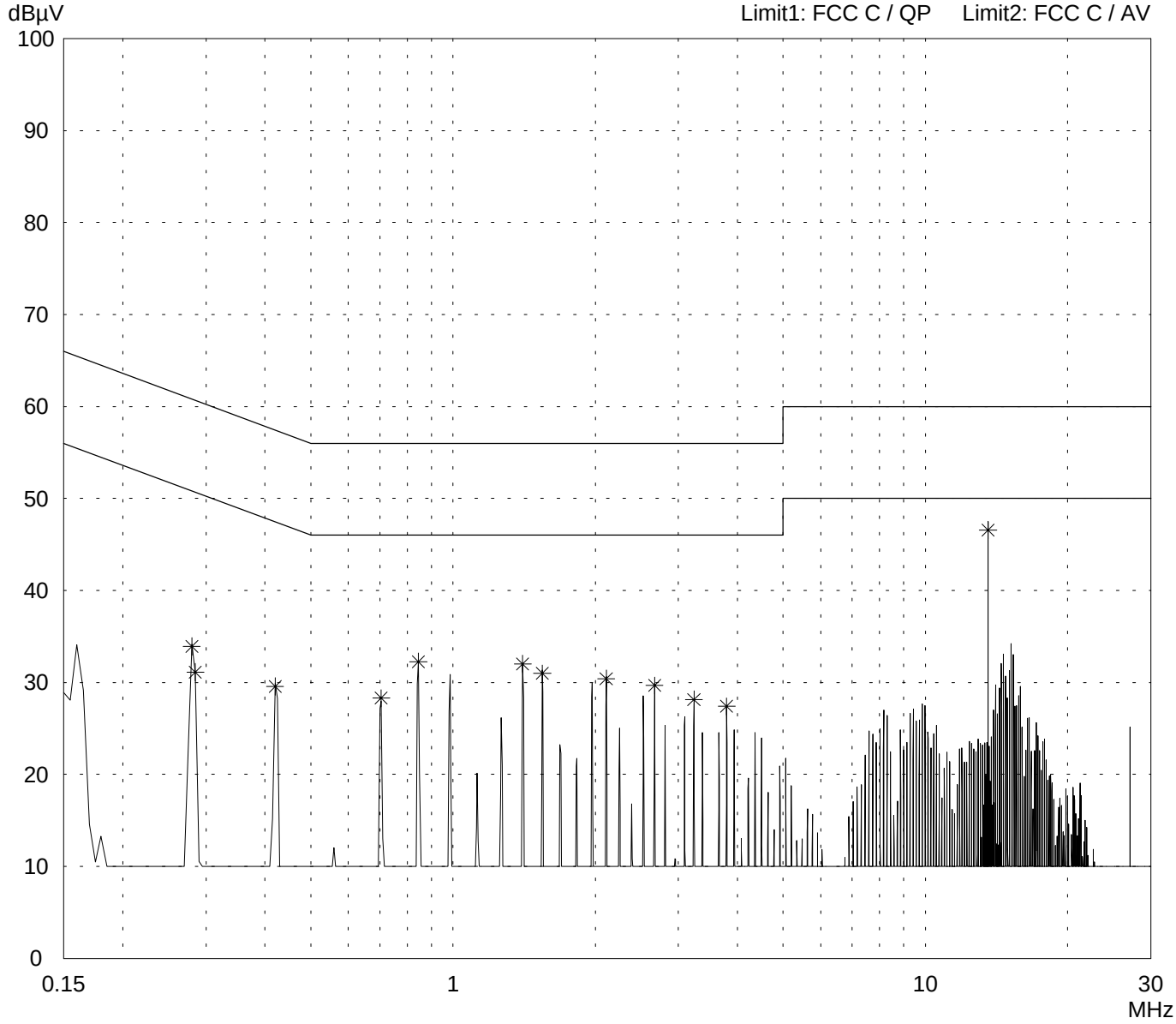
Conducted Emission Test 150 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: Moby D SLG D12	Mode: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Shielded room, cabin no. 2	i-code datacoding fast 1/1
Tested on: Linecord 230 V AC power supply EUT Phase N	with TAG
	Supply Voltage: 230 V AC original power supply power supply grounded
Date of test: 06/28/2004 Operator: K. Roidt	
Test performed: automatically File name:	

Detector: Average / Final Results: AV	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 51905-40261 Page 36 of 43 Pages

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

Model: Moby D SLG D12	Mode: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Shielded room, cabin no. 2	i-code datacoding fast 1/1
Tested on: Linecord 230 V AC power supply EUT Phase N	with TAG
Date of test: 06/28/2004 Operator: K. Roidt	Supply Voltage: 230 V AC original power supply power supply grounded
Test performed: automatically File name:	

Detector: Average / Final Results: AV	Final results: 20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.280	33.9		33.9	50.8	
0.285	31.1		31.1	50.7	
0.420	29.6		29.6	47.4	
0.705	28.3		28.3	46.0	
0.845	32.2		32.2	46.0	
1.405	32.0		32.0	46.0	
1.545	31.0		31.0	46.0	
2.110	30.4		30.4	46.0	
2.670	29.7		29.7	46.0	
3.235	28.1		28.1	46.0	
3.795	27.4		27.4	46.0	
13.565	46.6		46.6	50.0	

Result: Limit kept	Project file: 51905-40261

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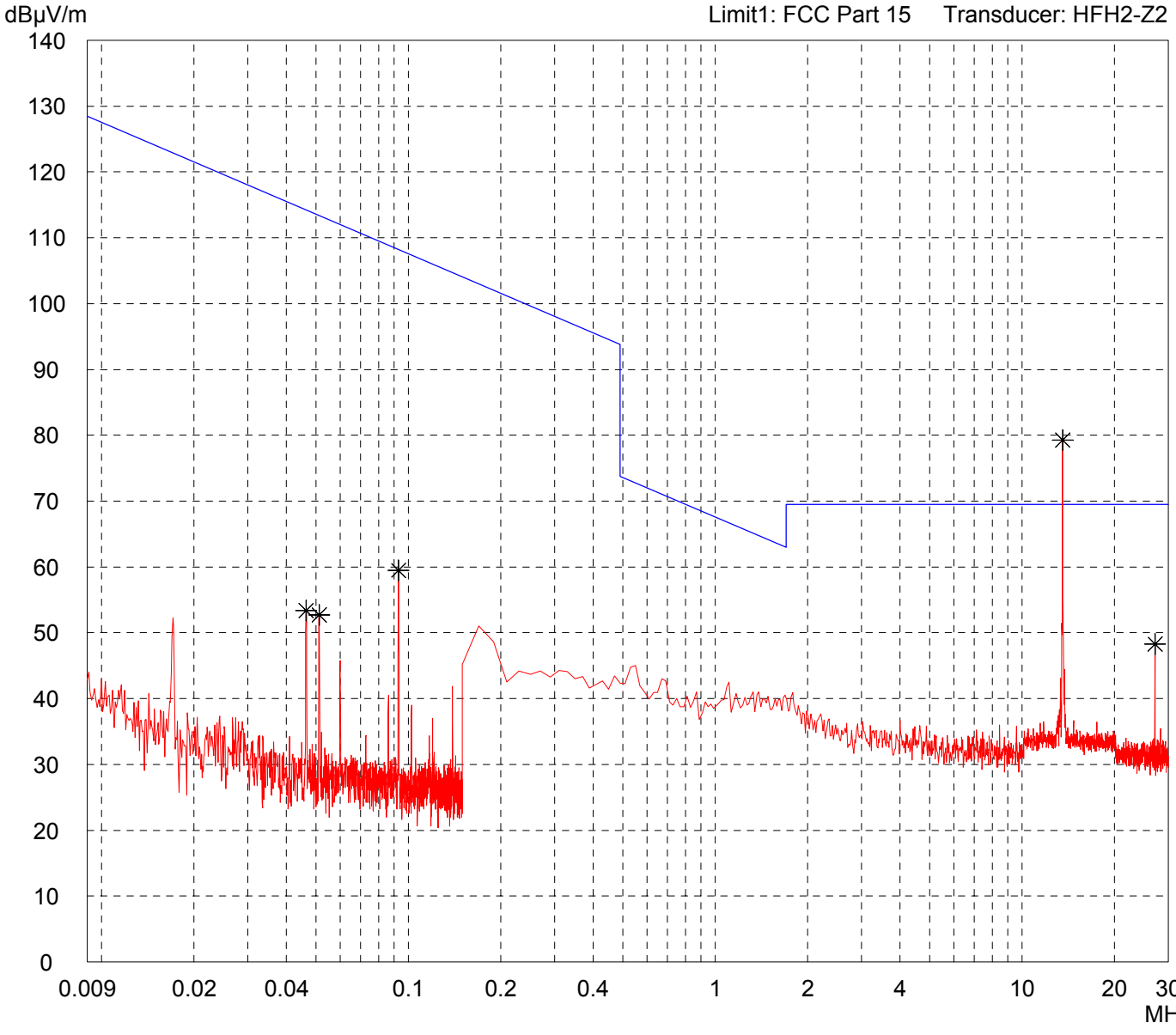
Radiated Emission Test 9 kHz - 30 MHz
acc. to FCC Part 15 (Fully Anechoic Chamber)

Model: Moby D SLG D12	Comment: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Fully anechoic room, cabin no. 2	i-code datacoding fast 1 / 1
Tested on: Test distance 3 metres Vertical Polarization	with TAG
Date of test: 04/13/2004 / Operator: K. Roidt	Supply Voltage: 24 V DC external
Test performed: by hand / File name: default.emi	Measurement according : Section 15.225

Detector: Peak	List of values: Selected by hand



Result: Prescan	Project file: 51905-40261

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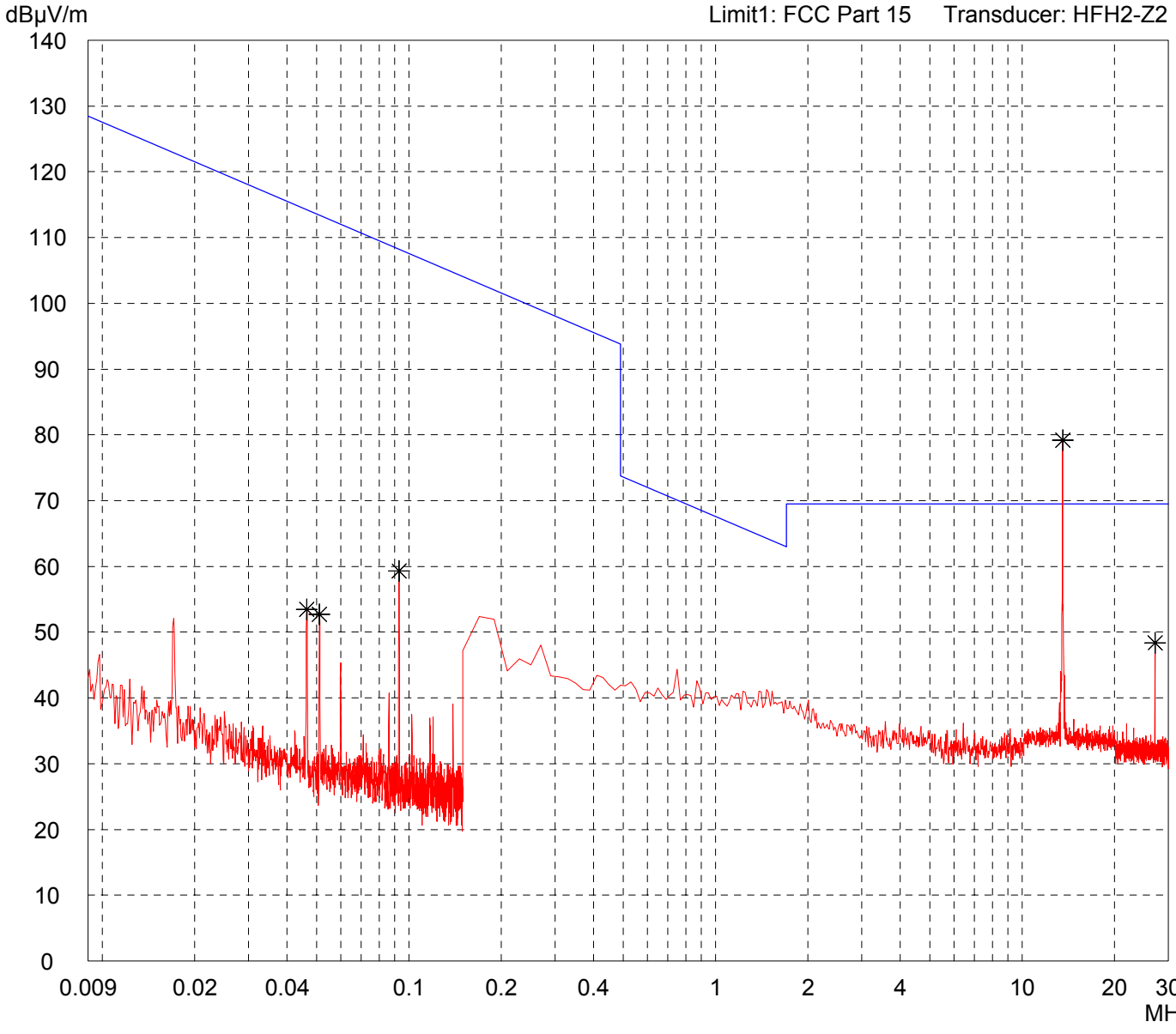
Radiated Emission Test 9 kHz - 30 MHz
acc. to FCC Part 15 (Fully Anechoic Chamber)

Model: Moby D SLG D12	Comment: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Fully anechoic room, cabin no. 2	i-code datacoding fast 1 / 1
Tested on: Test distance 3 metres Vertical Polarization	without TAG
Date of test: 04/13/2004 / Operator: K. Roidt	Supply Voltage: 24 V DC external
Test performed: by hand / File name: default.emi	Measurement according : Section 15.225
Detector: Peak	List of values: Selected by hand



Result: Prescan	Project file: 51905-40261

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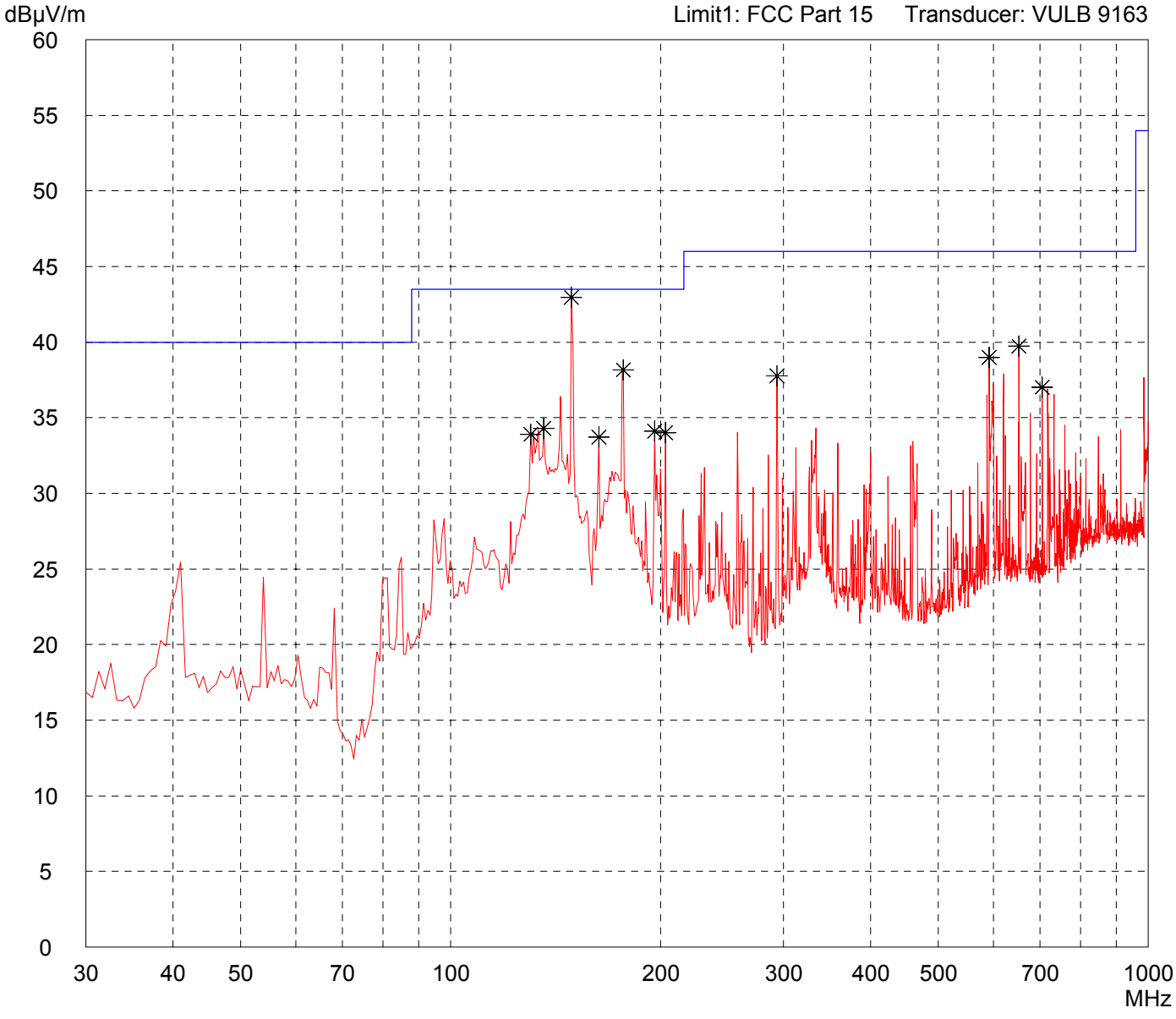
Radiated Emission Test 30 MHz - 1 GHz
acc. to FCC Part 15 (Fully Anechoic Chamber)

Model: Moby D SLG D12	Comment: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Fully anechoic room, cabin no. 2	i-code datacoding fast 1 / 1
Tested on: Test distance 3 metres Horizontal Polarization	with TAG
Date of test: 04/13/2004 / Operator: K. Roidt	Supply Voltage: 24 V DC external
Test performed: automatically / File name: default.emi	

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

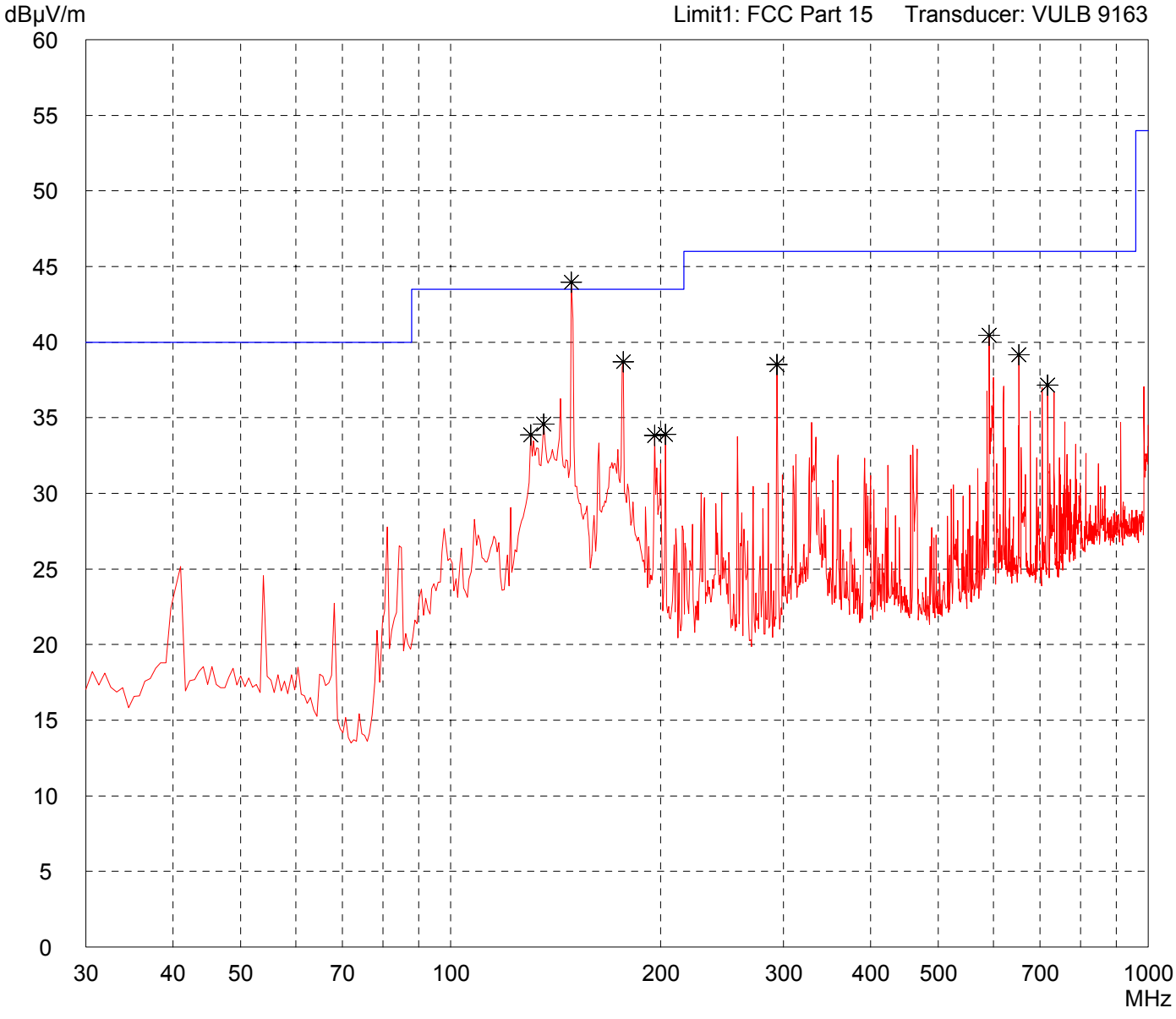


Result: Prescan	Project file: 51905-40261 / Page 40 of 43 Pages

Radiated Emission Test 30 MHz - 1 GHz
acc. to FCC Part 15 (Fully Anechoic Chamber)

Model: Moby D SLG D12	Comment: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Fully anechoic room, cabin no. 2	i-code datacoding fast 1 / 1
Tested on: Test distance 3 metres Vertical Polarization	with TAG
Date of test: 04/13/2004 / Operator: K. Roidt	Supply Voltage: 24 V DC external
Test performed: automatically / File name: default.emi	

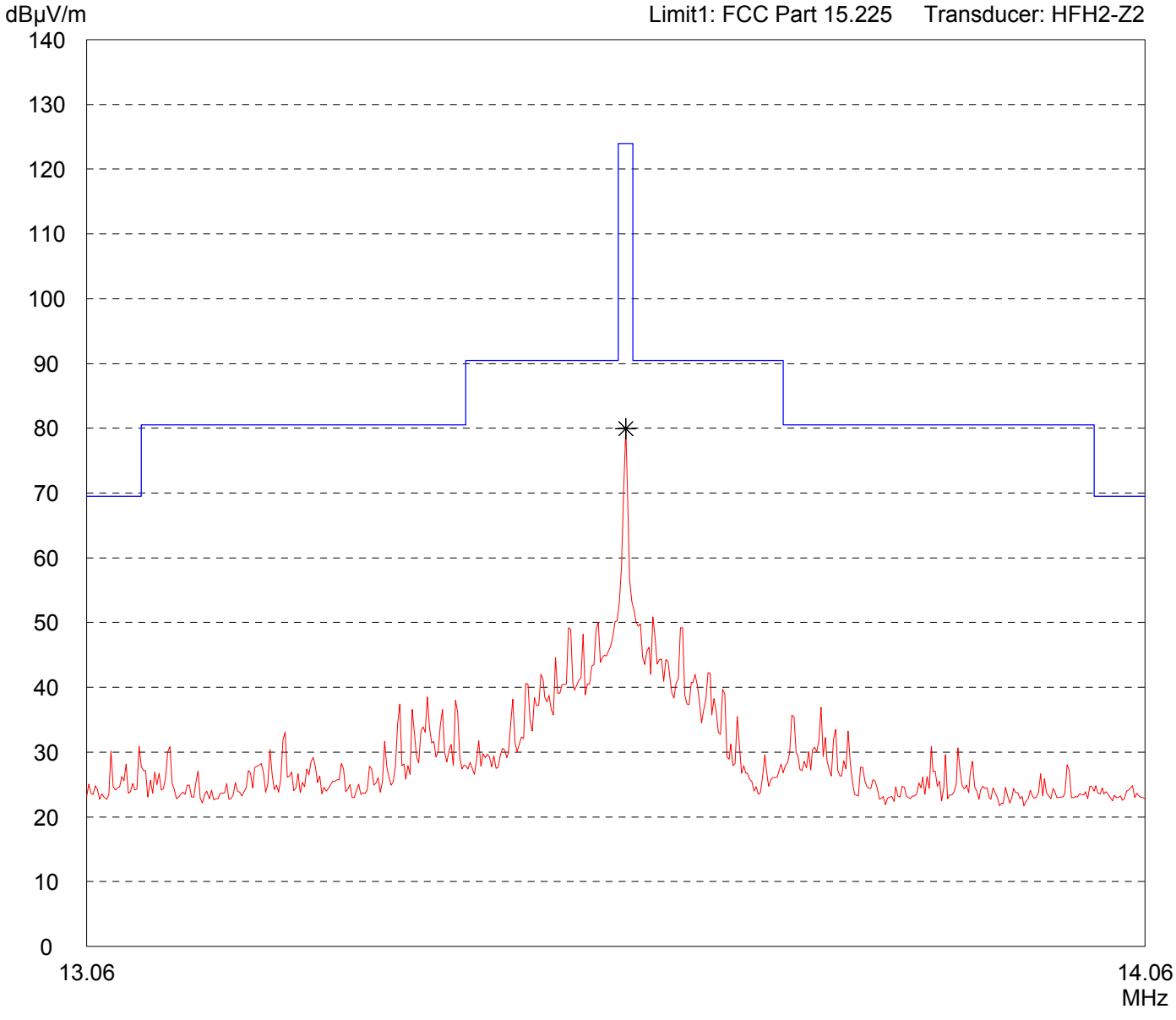
Detector: Peak	List of values: 10 dB Margin / 50 Subranges



Result: Prescan	Project file: 51905-40261 / Page 41 of 43 Pages

Radiated Emission Test 13.06 MHz - 14.06 MHz
acc. to FCC Part 15.225 (Fully Anechoic Chamber)

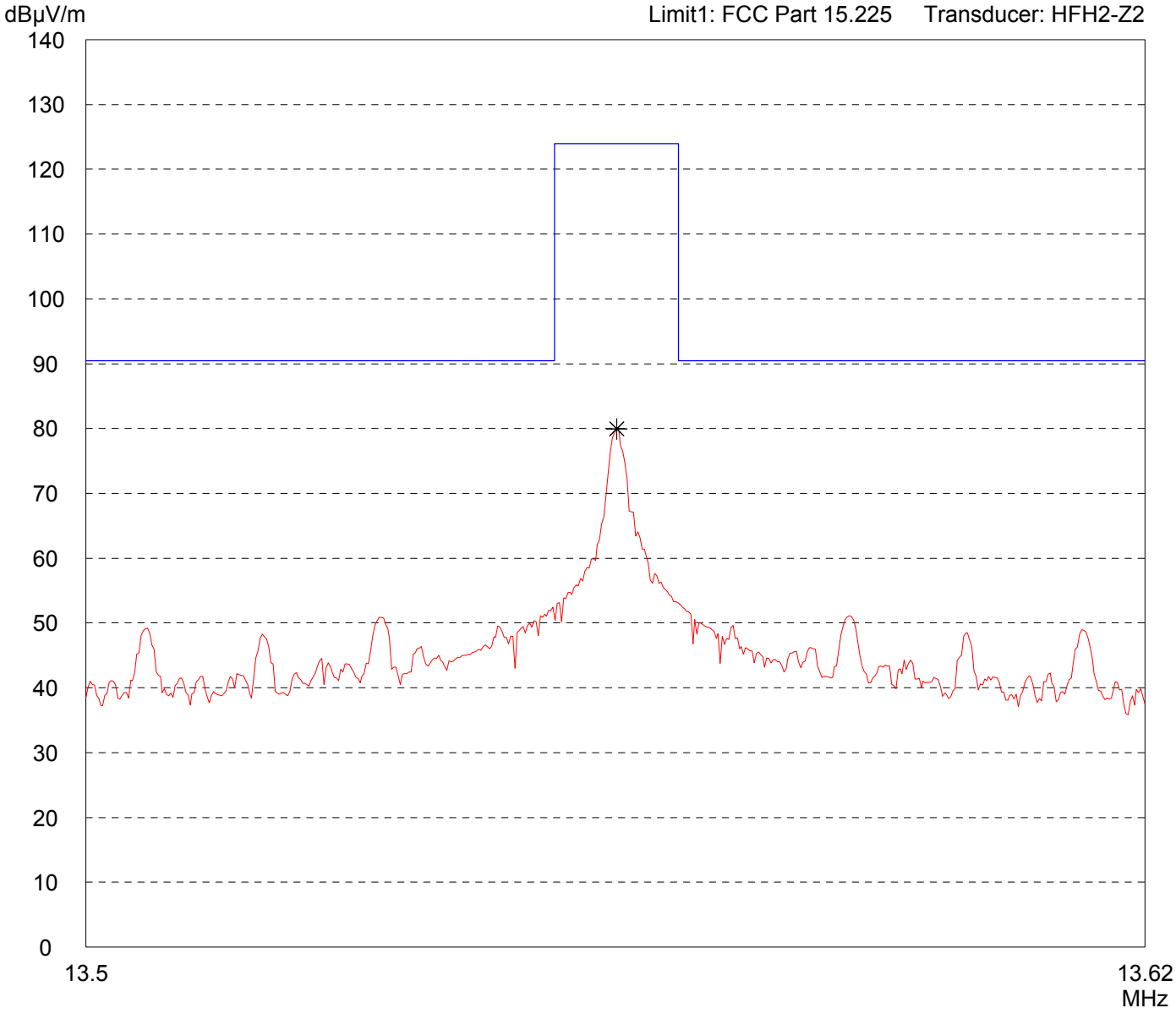
Model: Moby D SLG D12	Comment: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Fully anechoic room, cabin no. 2	i-code datacoding fast 1 / 1
Tested on: Test distance 3 metres Vertical Polarization	with TAG
Date of test: 04/13/2004 Operator: K. Roidt	Supply Voltage: 24 V DC external
Test performed: by hand File name: default.emi	Measurement according : Section 15.225
Detector: Peak	List of values: Selected by hand



Result: Limit kept	Project file: 51905-40261 Page 42 of 43 Pages

Radiated Emission Test 13.5 MHz - 13.62 MHz
acc. to FCC Part 15.225 (Fully Anechoic Chamber)

Model: Moby D SLG D12	Comment: FCC testsetup No. 1
Serial no.: SN 100753179.1	modulation 15 %
Applicant: Siemens AG	outputpower 1 W
Test site: Fully anechoic room, cabin no. 2	i-code datacoding fast 1 / 1
Tested on: Test distance 3 metres Vertical Polarization	with TAG
Date of test: 04/13/2004 / Operator: K. Roidt	Supply Voltage: 24 V DC external
Test performed: by hand / File name: default.emi	Measurement according : Section 15.225
Detector: Peak	List of values: Selected by hand



Result: Limit kept	Project file: 51905-40261

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