

TEST REPORT
of the accredited test laboratory

TÜV Nr.:M/EMV-11/126

about
the following EMC - test/- research

Applicant: Ing. Sumetzberger GmbH
Leberstr. 108
A-1110 Vienna

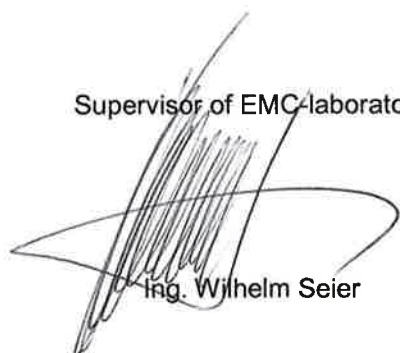
Product: RFID 2000

Serial Numbers: ---

Standard: FCC Part 15 (10-1-09 Edition);
RSS-210 Issue 7, June 2007

TÜV AUSTRIA SERVICES GMBH
Test laboratory for EMC

Supervisor of EMC-laboratory


Ing. Wilhelm Seier



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Ing. Michael Emminger

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Calibration Laboratory

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IC 2932K-1

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The results of this test report only refer to the provided equipment.

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1. Applicant

Company: Ing. Sumetzberger GmbH

Department: ---

Address: Leberstr. 108
A-1110 Vienna

Contact person: Mr. Michael Oertel

EUT received on: 09.02.2011

Tests were performed on: 09.02.2011



2. Description of EUT

EUT: RFID 2000

Manufacturer: Ing. Sumetzberger GmbH
Leberstr. 108
A-1110 Vienna

Description: Ing. Sumetzberger GmbH provided the following configuration for the measurements:

RFID 2000 with:
110 mm antenna
160 mm antenna
Mainboard SCB2000
Powersupply PSU 2.0

Operating mode: The measurements were carried out at the following running states:
Normal operation

Climatic conditions in the emc laboratory: Relative humidity: 34 %
Temperature: 21 °C

3. Standards / Final result

Name	Title	Deviation	Result
FCC Part 15 (10-1-09 Edition)	Radio Frequency Devices	none	OK
RSS-210 Issue 7, June 2007	Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment	none	OK
OK EUT passed NOK EUT failed			

4. Test results

4. 1.) Conducted emission on the AC power-supply-line

Class B Limits

Frequency range	Limit	
Detector	Quasi Peak	Average
0,150 - 0,5 MHz	66 - 56 dB μ V decreasing with the logarithm of frequency	56 - 46 dB μ V decreasing with the logarithm of frequency
0,5 - 5 MHz	56 dB μ V	46 dB μ V
5 - 30 MHz	60 dB μ V	50 dB μ V
Remark: Quasi Peak and Average limits must be both met		

Measuring apparatus parameters

Parameter	Preview measurement	Final measurement	Parameter	Preview measurement	Final measurement
Start frequency	150 kHz	150 kHz	Detector	MP/AV	QP/CAV
Stop frequency	30 MHz	30 MHz	Measuring time	10 ms	1 s
Stepsize	5 kHz	5 kHz	RF-attenuation	0dB	0dB
IF- Bandwidth	9 kHz	9 kHz	Preamplifier	0 dB	0 dB

Measurement uncertainty

Expanded uncertainty $U_c = 2,67$ dB (Uncertainty budget = 3,44 dB)

Operating mode	Measuring result
Normal operation	Measurement diagram 1

Test result

4. 1.1.) Measurement with QP-Detector

Due to the large margin to the limit, no final measurement was performed.

4. 1.2.) Measurement with CISPR AV-Detector

Frequency MHz	Level dB μ V	Limit dB μ V	Margin dB	Exceed- Mark	Phase	PE
0,575	31,2	46	14,8		N	GND
0,96	31,1	46	14,9		N	GND
1,345	31,1	46	14,9		N	GND
1,73	31	46	15		N	GND
2,115	31,1	46	14,9		N	GND
2,5	31,2	46	14,8		N	GND
2,885	31,5	46	14,5		L	GND
4,62	31,5	46	14,5		N	GND
8,1	42	50	8		N	GND
8,87	43,5	50	6,5		N	GND

4. 2.) Radiated emission according to FCC Part 15 and RSS-210

Limits

Frequency range	Limit	Bandwith	Measurement distance
0,009 – 0,150 MHz	2400 μ V / f(kHz)	200 Hz	300 m
0,150 – 0,490 MHz	2400 μ V / f(kHz)	9 kHz	300 m
0,490 – 1,705 MHz	24000 μ V / f(kHz)	9 kHz	30 m
1,705 - 30 MHz	30 μ V/m	9 kHz	30 m
30 – 88 MHz	100 μ V/m	120 kHz	3 m
88 – 216 MHz	150 μ V/m	120 kHz	3 m
216 – 960 MHz	200 μ V/m	120 kHz	3 m
960 MHz - 1000 MHz	500 μ V/m	120 kHz	3 m

The above standing field strength limits in the frequency band 9-90kHz, 110-490 kHz and above 1 GHz are based on average limits. All other above standing limits are based on quasi peak limits.

Operating mode	Measuring result
Normal operation	RFID 2000 with 110 mm antenna → measurements diagram 2 to 4 RFID 2000 with 110 mm antenna → measurements diagram 5 to 7

Test result

4. 2.1.) Measurement with QP-Detector (30 MHz - 1000 MHz)

RFID 2000 with 110 mm antenna

Frequency MHz	Level dB μ V/m	Limit dB μ V/m	Margin dB	Exceed- Mark	Height cm	Azimuth deg	Polarization
35	36,1	40	3,9		100	311	vertical
40	38,9	40	1,1		100	257	vertical
60	35,7	40	4,3		100	82	vertical
144	38,5	43,5	5		314	299	horizontal
160	40,2	43,5	3,3		209	284	horizontal
176	39,7	43,5	3,8		214	292	horizontal
192	40,4	43,5	3,1		194	285	horizontal
224	41,4	46	4,6		178	199	horizontal
232	44,3	46	1,7		165	9	horizontal
240,05	44,4	46	1,6		175	79	horizontal
248	42,8	46	3,2		189	282	horizontal
256,05	41,3	46	4,7		175	275	horizontal
264	44,3	46	1,7		151	196	horizontal
272	43,9	46	2,1		113	5	horizontal
280	44,2	46	1,8		120	193	horizontal
288	40,9	46	5,1		143	343	horizontal
296	41,1	46	4,9		130	158	horizontal

4. 2.2.) Measurement with QP-Detector (30 MHz - 1000 MHz)
RFID 2000 with 160 mm antenna

Frequency MHz	Level dBµV/m	Limit dBµV/m	Margin dB	Exceed- Mark	Height cm	Azimuth deg	Polarization
35	36,4	40	3,6		100	311	vertical
40	38,7	40	1,3		100	257	vertical
60	35	40	5		100	82	vertical
144	37,9	43,5	5,6		314	299	horizontal
160	38,2	43,5	5,3		209	284	horizontal
163,5	26,5	43,5	17		136	106	horizontal
164,45	28	43,5	15,5		129	135	horizontal
176	39,2	43,5	4,3		214	292	horizontal
184	31,1	43,5	12,4		155	226	horizontal
192	40,1	43,5	3,4		194	285	horizontal
224	42,7	46	3,3		135	290	horizontal
232	43,9	46	2,1		153	194	horizontal
240	44,9	46	1,1		157	197	horizontal
248	44,4	46	1,6		133	192	horizontal
256	45,7	46	0,3		103	173	horizontal
264	44,8	46	1,2		146	188	horizontal
272	44,2	46	1,8		124	191	horizontal
280	43,4	46	2,6		118	192	horizontal
288,05	39,9	46	6,1		131	175	horizontal
296	37,7	46	8,3		100	157	horizontal



Appendix 1

Test equipment used

<input checked="" type="checkbox"/>	Anechoic Chamber with 3m measurement distance	NT-100	<input type="checkbox"/>	Spectrumanalyzer – FSP7 9 kHz – 7 GHz	NT-200
<input type="checkbox"/>	Stripline according to ISO 11452-5	NT-108	<input type="checkbox"/>	ESVP - Test receiver 20 - 1000 MHz	NT-201
<input checked="" type="checkbox"/>	MA 240 - Antenna mast 1 - 4 m height	NT-110	<input type="checkbox"/>	ESPC - Test receiver 9 kHz - 2,5 GHz	NT-203
<input checked="" type="checkbox"/>	DS 412 - Turntable 0 - 400 ° Azimuth	NT-111	<input checked="" type="checkbox"/>	ESI26 – Test receiver 20 Hz – 26,5 GHz	NT-207
<input checked="" type="checkbox"/>	HD 100 Controller Mast+Turntable	NT-112	<input type="checkbox"/>	Digital Radio Tester CTS55	NT-208
<input checked="" type="checkbox"/>	HUF-Z2 - Bicon. Antennna 20 - 300 MHz	NT-120	<input type="checkbox"/>	Noise-gen., ITU-R 559-2 20 Hz – 20 kHz	NT-209
<input type="checkbox"/>	HUF-Z3 - Log. Per. Antenna 200 - 1000 MHz	NT-121	<input type="checkbox"/>	CMTA - Radiocommunication analyzer ; 0,1 - 1000 MHz	NT-210
<input type="checkbox"/>	HFH-Z2 - Loop Antenna 9 kHz - 30 MHz	NT-122	<input type="checkbox"/>	3271 - Spectrum analyzer 100 Hz - 26,5 GHz	NT-211
<input type="checkbox"/>	HFH-Z6 - Rod Antenna 9 kHz - 30 MHz	NT-123	<input type="checkbox"/>	Digital Radio Tester Aeroflex 3920	NT-212/1
<input type="checkbox"/>	3121C - Dipole Antenna 28 - 1000 MHz	NT-124	<input type="checkbox"/>	2855S - Communication analyzer	NT-213
<input type="checkbox"/>	3115 - Horn Antenna 1 - 18 GHz (immunity)	NT-125	<input type="checkbox"/>	Mixer M28HW 26,5 GHz - 40 GHz	NT-214
<input type="checkbox"/>	3116 - Horn Antenna 18 - 40 GHz	NT-126	<input type="checkbox"/>	Diode Detector 0,01 GHz - 26,5 GHz	NT-215
<input type="checkbox"/>	SAS-200/543 - Bicon. Antenna 20 MHz - 300 MHz	NT-127	<input checked="" type="checkbox"/>	RubiSource T&M Timing reference	NT-216
<input type="checkbox"/>	AT-1080 - Log. Per. Antenna 80 - 1000 MHz	NT-128	<input type="checkbox"/>	Radiocommunicationanalyzer SWR 1180 MD	NT-217
<input checked="" type="checkbox"/>	HK-116 - bicon. Antenna 20 MHz - 300 MHz	NT-129	<input type="checkbox"/>	Mixer M19HWD 40 GHz – 60 GHz	NT-218
<input type="checkbox"/>	HK-116 - bicon. Antenna 20 MHz - 300 MHz	NT-130	<input type="checkbox"/>	Mixer M12HWD 60 GHz – 90 GHz	NT-219
<input checked="" type="checkbox"/>	3146 - Log. Per. Antenna 200 – 1000 MHz	NT-131	<input type="checkbox"/>	TDS - 540 DSO Digital scope	NT-220
<input type="checkbox"/>	Loop Antenna H-Field	NT-132	<input type="checkbox"/>	DSO9104 Digital scope	NT-220/1
<input type="checkbox"/>	Horn Antenna 500 MHz - 2900 MHz	NT-133	<input type="checkbox"/>	TPS 2014 Digital scope	NT-222
<input type="checkbox"/>	Horn Antenna 500 MHz - 6000 MHz	NT-133/1	<input type="checkbox"/>	Artificial Ear according to IEC 60318	NT-224
<input type="checkbox"/>	Log. per. Antenna 800 MHz - 2500 MHz	NT-134	<input type="checkbox"/>	1 kHz Sound calibrator	NT-225
<input type="checkbox"/>	Log. per. Antenna 800 MHz - 2500 MHz	NT-135	<input type="checkbox"/>	B10 - Harmonics and flicker analyzer	NT-232
<input type="checkbox"/>	BiConiLog Antenna 26 MHz – 2000 MHz	NT-137	<input type="checkbox"/>	SRM-3000 Spectrumanalyzer	NT-233
<input type="checkbox"/>	Conical Dipol Antenna PCD8250	NT-138	<input type="checkbox"/>	E-field probe SRM 75 MHz – 3 GHz	NT-234
<input type="checkbox"/>	HF 906 - Horn Antenna 1 - 18 GHz (emission)	NT-139	<input type="checkbox"/>	Field Meter NBM-500 incl. E- and H-Field probes	NT-240a-d
<input checked="" type="checkbox"/>	HZ-1 Antenna tripod	NT-150	<input type="checkbox"/>	Hall-Teslameter ETM-1	NT-241
<input type="checkbox"/>	BN 1500 Antenna tripod	NT-151	<input type="checkbox"/>	EFA-3 H-field- / E-field probe	NT-243
<input type="checkbox"/>	Ant. tripod for EN61000-4-3 Model TP1000A	NT-156	<input type="checkbox"/>	Field Meter EMR-200 100 kHz – 3 GHz	NT-244
<input type="checkbox"/>	Power quality analyzer Fluke 1760 (complete set)	NT-160 - NT-172	<input type="checkbox"/>	E-field probe 100 kHz – 3 GHz	NT-245

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Appendix 1 (continued)

Test equipment used

<input type="checkbox"/>	H-field probe 300 kHz – 30 MHz	NT-246	<input type="checkbox"/>	PSURGE 4.1 Surge generator	NT-324
<input type="checkbox"/>	E-field probe 3 MHz – 18 GHz	NT-247	<input type="checkbox"/>	TRANSIENT 1000 Immunity test system	NT-325
<input type="checkbox"/>	H-field probe 27 MHz – 1 GHz	NT-248	<input type="checkbox"/>	VCS 500-M6 Surge-Generator	NT-326
<input type="checkbox"/>	ELT-400 1 Hz – 400 kHz	NT-249	<input type="checkbox"/>	BTA-250 - RF-Amplifier 9 kHz - 220 MHz / 250 W	NT-330
<input type="checkbox"/>	MDS 21 - Absorbing clamp 30 - 1000 MHz	NT-250	<input type="checkbox"/>	T82-50 RF-Amplifier 2 GHz – 8 GHz	NT-331
<input type="checkbox"/>	FCC-203I EM Injection clamp	NT-251	<input type="checkbox"/>	500W1000M7 - RF-Amplifier 80 - 1000 MHz / 500 W	NT-332
<input type="checkbox"/>	FCC-203I-DCN Ferrite decoupling network	NT-252	<input type="checkbox"/>	AS0102-65R - RF-Amplifier 1 GHz - 2 GHz	NT-333
<input type="checkbox"/>	PR50 Current Probe	NT-253	<input type="checkbox"/>	APA01 – RF-Amplifier 0,5 GHz – 2,5 GHz	NT-334
<input type="checkbox"/>	PR630 Current Probe	NT-254	<input type="checkbox"/>	Preamplifier 1 GHz - 4 GHz	NT-335
<input type="checkbox"/>	Fluke 87 V True RMS Multimeter	NT-260	<input type="checkbox"/>	Preamplifier for GPS MKU 152 A	NT-336
<input type="checkbox"/>	Model 2000 Digital Multimeter	NT-261	<input type="checkbox"/>	Preamplifier 100 MHz – 23 GHz	NT-337
<input type="checkbox"/>	Fluke 87 V Digital Multimeter	NT-262/1	<input type="checkbox"/>	DC Block 10 MHz – 18 GHz Model 8048	NT-338
<input checked="" type="checkbox"/>	ESH2-Z5-U1 Artificial mains network 4x25A	NT-300	<input type="checkbox"/>	2-97201 Electronic load	NT-341
<input type="checkbox"/>	ESH3-Z5-U1 Artificial mains network 2x10A	NT-301	<input type="checkbox"/>	TSX3510P - Power supply 0-30 V / 0 - 10 A	NT-344
<input type="checkbox"/>	ESH3-Z6-U1 Artificial mains network 1x100A	NT-302	<input type="checkbox"/>	TSX3510P - Power supply 0-30 V / 0 - 10 A	NT-345
<input type="checkbox"/>	ESH3-Z4 T-Artificial network	NT-303	<input type="checkbox"/>	VDS 200 Mobil-impuls-generator	NT-350
<input type="checkbox"/>	PHE 4500/B Power amplifier	NT-304	<input type="checkbox"/>	LD 200 Mobil-impuls-generator	NT-351
<input type="checkbox"/>	EZ10 T-Artificial Network	NT-305	<input type="checkbox"/>	MPG 200 Mobil-Impuls-Generators	NT-352
<input type="checkbox"/>	ENY22 Artificial Network	NT-308	<input type="checkbox"/>	EFT 200 Mobil-impuls-generator	NT-353
<input type="checkbox"/>	ENY41 Artificial Network	NT-309	<input type="checkbox"/>	AN 200 S1 Artificial Network	NT-354
<input type="checkbox"/>	SMG - Signal generator 0,1 - 1000 MHz	NT-310	<input type="checkbox"/>	FP-EFT 32M 3 ph. Coupling filter (Burst)	NT-400/1
<input type="checkbox"/>	SMA100A - Signal generator 9 kHz - 6 GHz	NT-310/1	<input type="checkbox"/>	PHE 4500 - Mains impedance network	NT-401
<input type="checkbox"/>	PM 5518 TXVPS Video generator	NT-311	<input type="checkbox"/>	IP 6.2 Coupling filter for data lines (Surge)	NT-403
<input type="checkbox"/>	RefRad Reference generator	NT-312	<input type="checkbox"/>	TK 9421 High Power Volt. Probe 150 kHz - 30 MHz	NT-409
<input type="checkbox"/>	SMP 02 Signal generator 10 MHz - 20 GHz	NT-313	<input type="checkbox"/>	ESH2-Z3 - Probe 9 kHz - 30 MHz	NT-410
<input type="checkbox"/>	40 MHz Arbitrary Generator TGA1241	NT-315	<input type="checkbox"/>	IP 4 - Capacitive clamp (Burst)	NT-411
<input type="checkbox"/>	Artificial mains network NSLK 8127-PLC	NT-316	<input type="checkbox"/>	Highpass-Filter 100 MHz – 3 GHz	NT-412
<input type="checkbox"/>	PEFT - Burst generator up to 4 kV	NT-320	<input type="checkbox"/>	Highpass-Filter 600 MHz – 4 GHz	NT-413
<input type="checkbox"/>	ESD 30 System up to 25 kV	NT-321	<input type="checkbox"/>	Highpass-Filter 1250 MHz – 4 GHz	NT-414

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Test equipment used

<input type="checkbox"/>	Highpass-Filter 1800 MHz – 16 GHz	NT-415	<input type="checkbox"/>	FCC-801-AF10 Coupling decoupling network	NT-461
<input type="checkbox"/>	Highpass-Filter 3500 MHz – 18 GHz	NT-416	<input type="checkbox"/>	FCC-801-S25 Coupling decoupling network	NT-462
<input type="checkbox"/>	RF-Attenuator 10 dB DC – 18 GHz / 50 W	NT-417	<input type="checkbox"/>	FCC-801-T4 Coupling decoupling network	NT-463
<input type="checkbox"/>	RF-Attenuator 6 dB DC – 18 GHz / 50 W	NT-418	<input type="checkbox"/>	FCC-801-C1 Coupling decoupling network	NT-464
<input type="checkbox"/>	RF-Attenuator 3 dB DC – 18 GHz / 50 W	NT-419	<input type="checkbox"/>	F-16A - Current probe 1kHz - 70MHz	NT-465
<input type="checkbox"/>	RF-Attenuator 20 dB DC - 1000 MHz / 25 W	NT-421	<input type="checkbox"/>	95242-1 – Current probe 10 MHz – 400 MHz	NT-468
<input type="checkbox"/>	RF-Attenuator 30 dB DC - 1000 MHz / 1 W	NT-423	<input type="checkbox"/>	94106-1L-1 – Current probe 20 Hz – 450 MHz	NT-471
<input type="checkbox"/>	RF-Attenuator 30 dB	NT-424	<input type="checkbox"/>	GA 1240 Power amplifier according to EN 61000-4-16	NT-480
<input type="checkbox"/>	RF-Attenuator 6 dB DC - 1000 MHz / 1 W	NT-425	<input type="checkbox"/>	Coupling networks according to EN 61000-4-16	NT-481 - NT-483
<input type="checkbox"/>	RF-Attenuator 6 dB DC - 1000 MHz / 1 W	NT-426	<input checked="" type="checkbox"/>	PC P4 3 GHz Test computer	NT-500
<input type="checkbox"/>	RF-Attenuator 6 dB	NT-428	<input type="checkbox"/>	PC P4 1700 MHz Notebook	NT-505
<input type="checkbox"/>	RF-Attenuator 0 dB - 81 dB	NT-429	<input type="checkbox"/>	PC Intel Centrino 1600 MHz Notebook	NT-506
<input type="checkbox"/>	WRU 27 - Band blocking 27 MHz	NT-430	<input type="checkbox"/>	Monitoring camera with Monitor	NT-511
<input type="checkbox"/>	WHJ450C9 AA - High pass 450 MHz	NT-431	<input checked="" type="checkbox"/>	ES-K1 Version 1.71 SP2 Test software	NT-520
<input type="checkbox"/>	WHJ250C9 AA - High pass 250 MHz	NT-432	<input type="checkbox"/>	SRM-TS Version 1.3 software for SRM-3000	NT-522
<input type="checkbox"/>	RF-Load 150 W	NT-433	<input type="checkbox"/>	SPS-PHE Test software V2.5 voltage fluctuations/harmonics	NT-525
<input type="checkbox"/>	Impedance transducer 1:4 ; 1:9 ; 1:16	NT-435	<input type="checkbox"/>	SPS-EM Test software V4.0 EN61000-4-11	NT-527
<input type="checkbox"/>	RF-Attenuator DC – 18 GHz 6 dB	NT-436	<input type="checkbox"/>	Noise power test apparatus according to EN 55014	NT-530
<input type="checkbox"/>	RF-Attenuator DC – 18 GHz 6 dB	NT-437	<input type="checkbox"/>	Vertical coupling plane (ESD)	NT-531
<input type="checkbox"/>	RF-Attenuator DC – 18 GHz 10 dB	NT-438	<input type="checkbox"/>	Test cable #4 for EN 61000-4-6	NT-553
<input type="checkbox"/>	RF-Attenuator DC – 18 GHz 20 dB	NT-439	<input checked="" type="checkbox"/>	Test cable #3 for conducted emission	NT-554
<input type="checkbox"/>	I+P 7780 Directional coupler 100 - 2000 MHz	NT-440	<input type="checkbox"/>	Test cable #5 ESD-cable (2x470k)	NT-555
<input type="checkbox"/>	ESH3-Z2 - Pulse limiter 9 kHz - 30 MHz	NT-441	<input type="checkbox"/>	Test cable #6 ESD-cable (2x470k)	NT-556
<input type="checkbox"/>	Power Divider 6 dB/1 W/50 Ohm	NT-443	<input type="checkbox"/>	Test cable #8 Sucoflex 104EA	NT-559
<input type="checkbox"/>	Directional coupler 0,1 MHz – 70 MHz	NT-444	<input type="checkbox"/>	Test cable #9 (for outdoor measurements)	NT-580
<input type="checkbox"/>	Directional coupler 0,1 MHz – 70 MHz	NT-445	<input type="checkbox"/>	Test cable #10 (for outdoor measurements)	NT-581
<input type="checkbox"/>	Tube imitations according to EN 55015	NT-450	<input type="checkbox"/>	Test cable #13 Sucoflex 104PE	NT-584
<input type="checkbox"/>	FCC-801-M3-16A Coupling decoupling network	NT-458	<input type="checkbox"/>	Test cable #21 for SRM-3000	NT-592
<input type="checkbox"/>	FCC-801-M2-50A Coupling decoupling network	NT-459	<input type="checkbox"/>	Shield chamber	NT-600
<input type="checkbox"/>	FCC-801-M5-25 Coupling decoupling network	NT-460	<input type="checkbox"/>	Climatic chamber	M-1200

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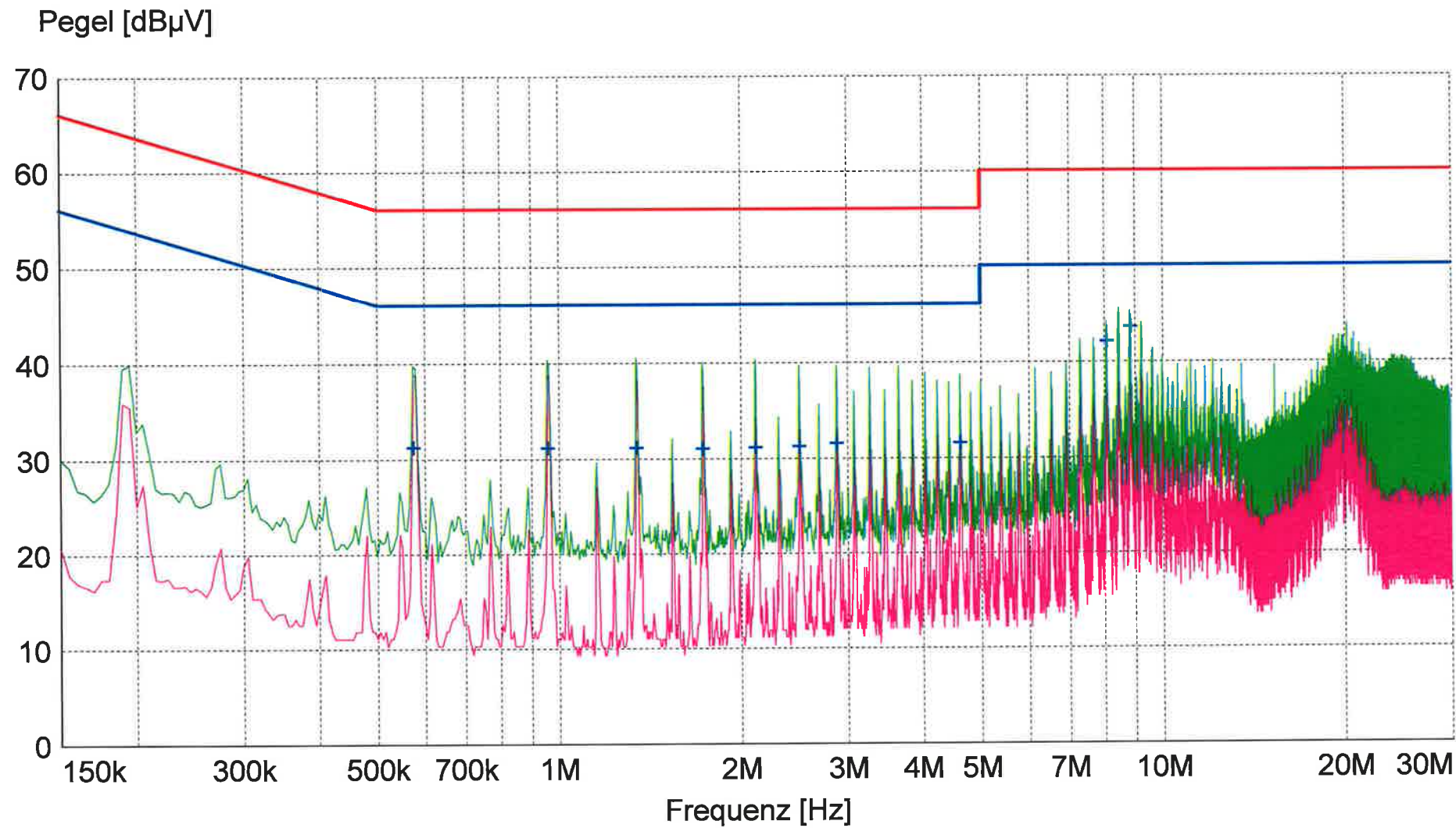
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+ + MES RFID2000_VAC_fin2
 — MES RFID2000_VAC_pre
 — MES RFID2000_VAC_pre2
 — LIM EN 55022 V QP
 — LIM EN 55022 V AV

EN 55022 V QP
 EN 55022 V AV

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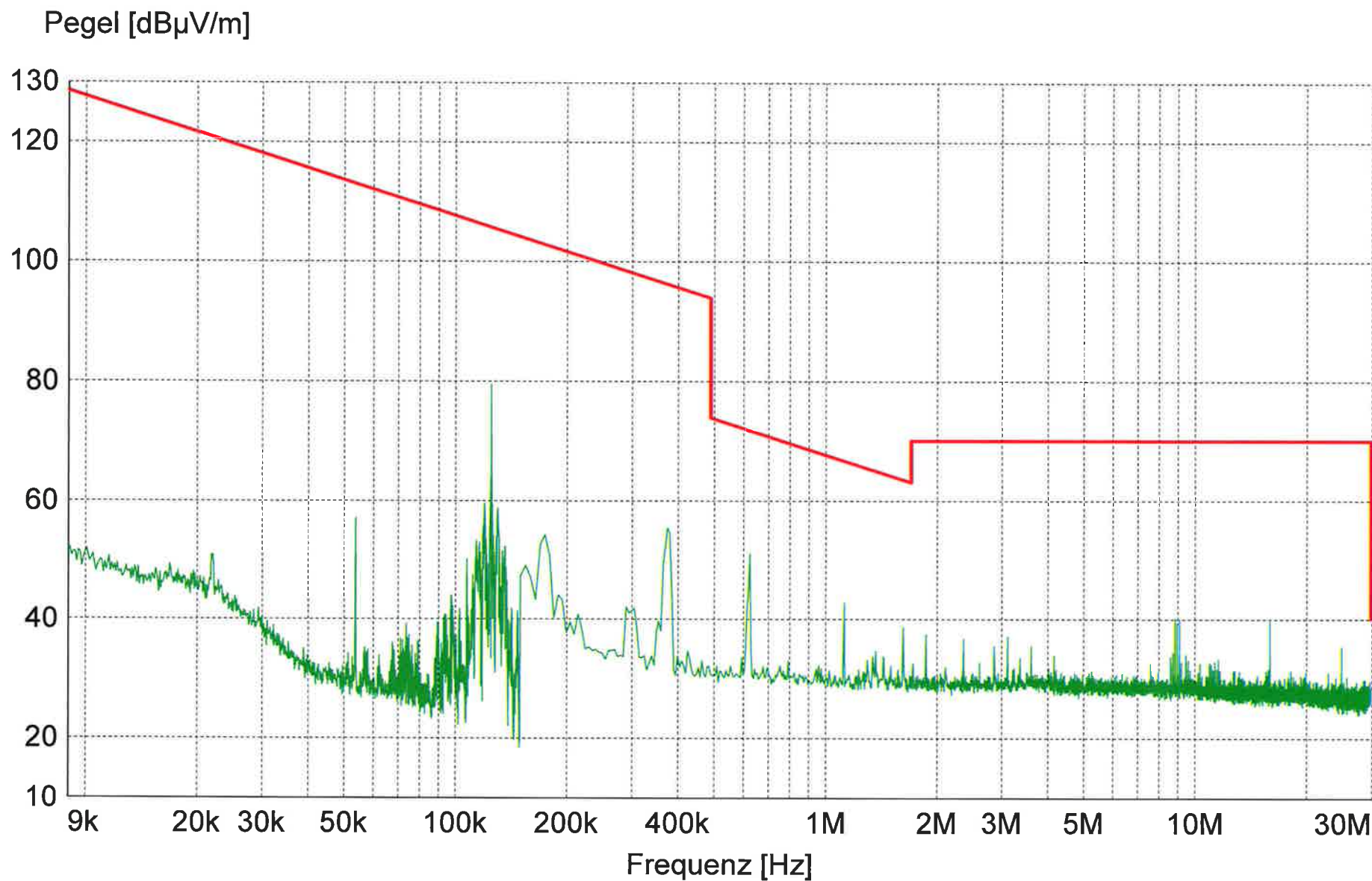
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Measurement diagram:
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— MES RFID_k1_F0_pre
 — LIM FCC ClassB F QP 40dB FCC ClassB, field strength 3m

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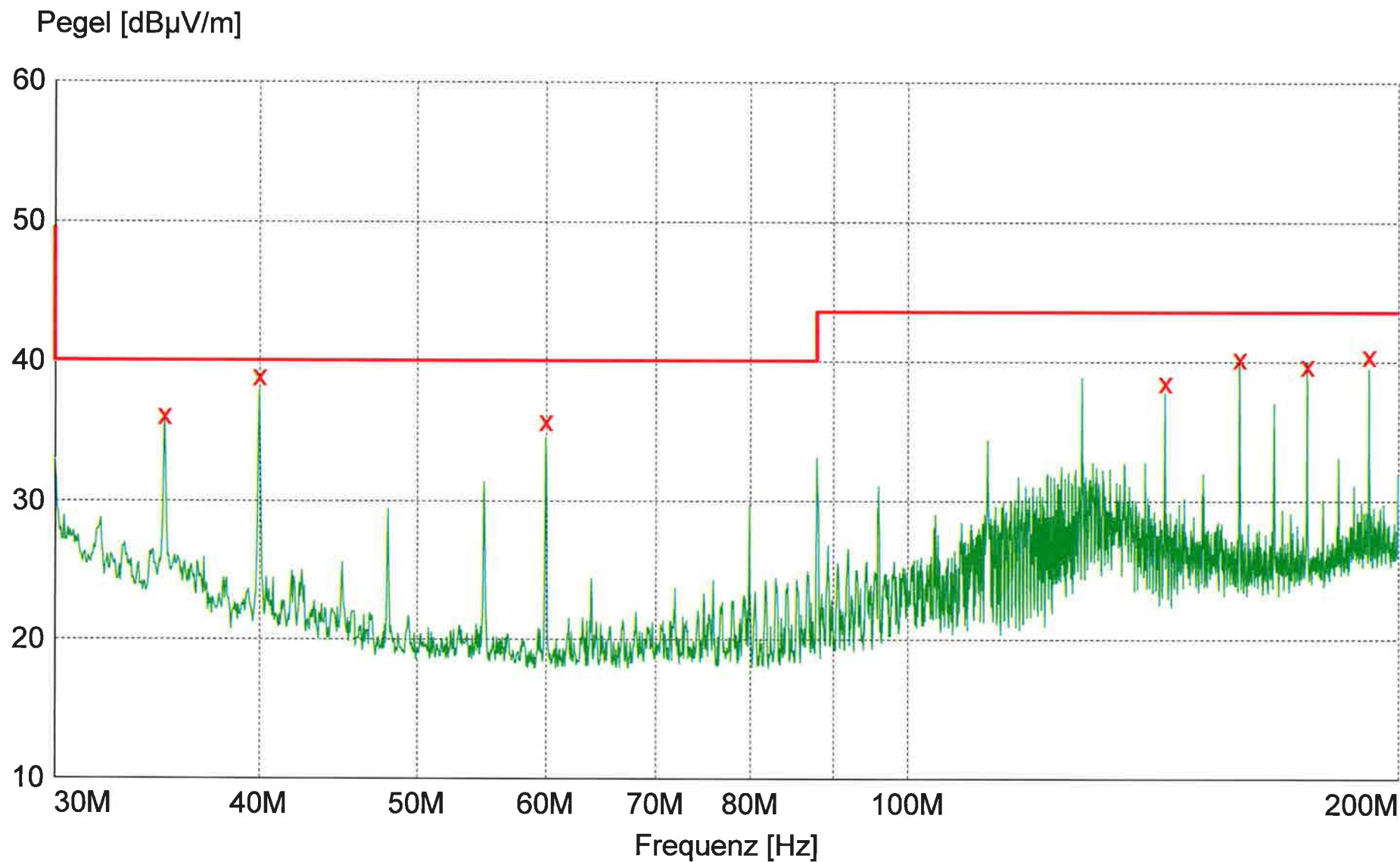
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x x :MES RFID_k1_F1_fin
 — MES RFID_k1_F1_pre
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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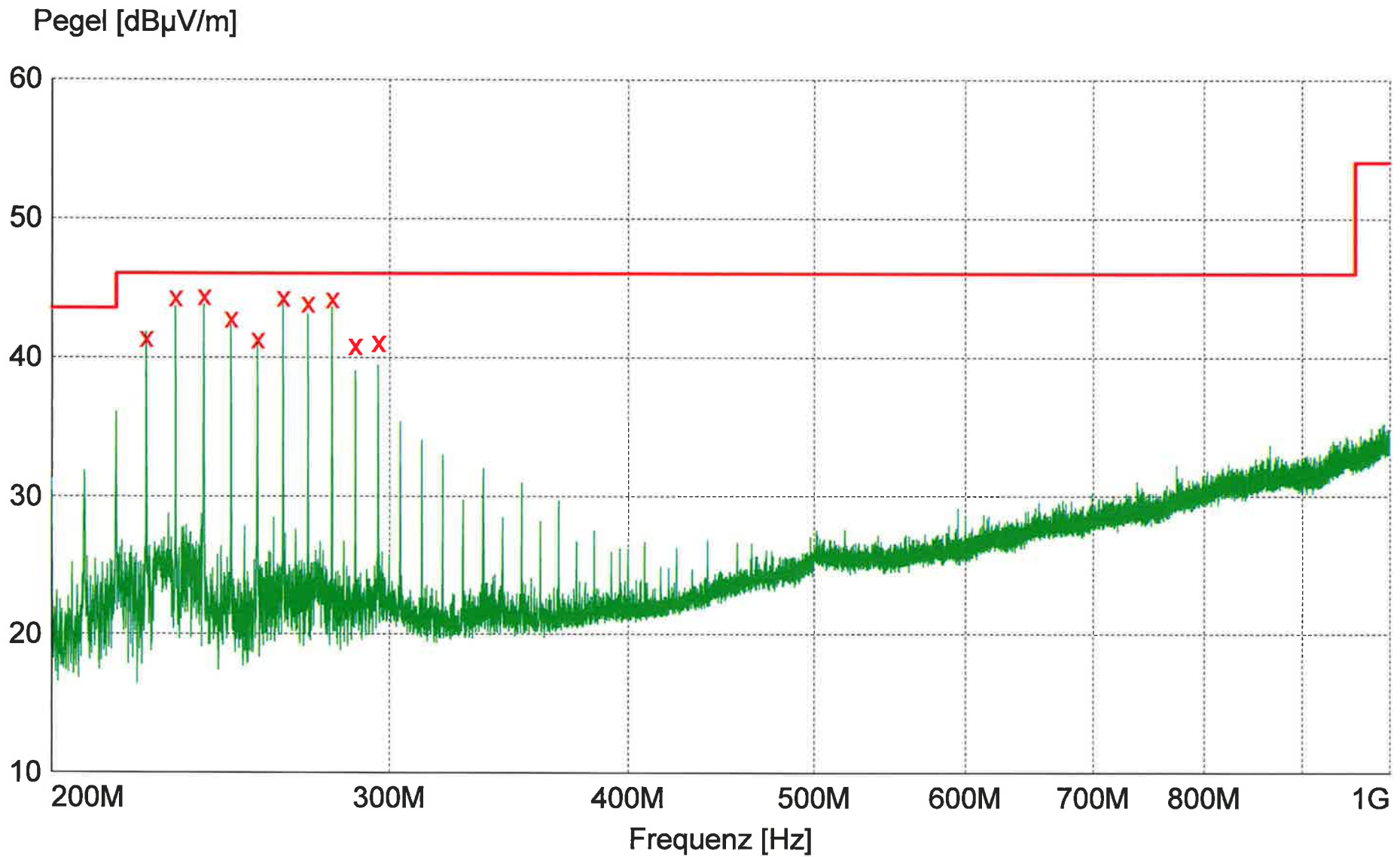
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FCC ClassB, field strength 3m

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Measurement diagram:
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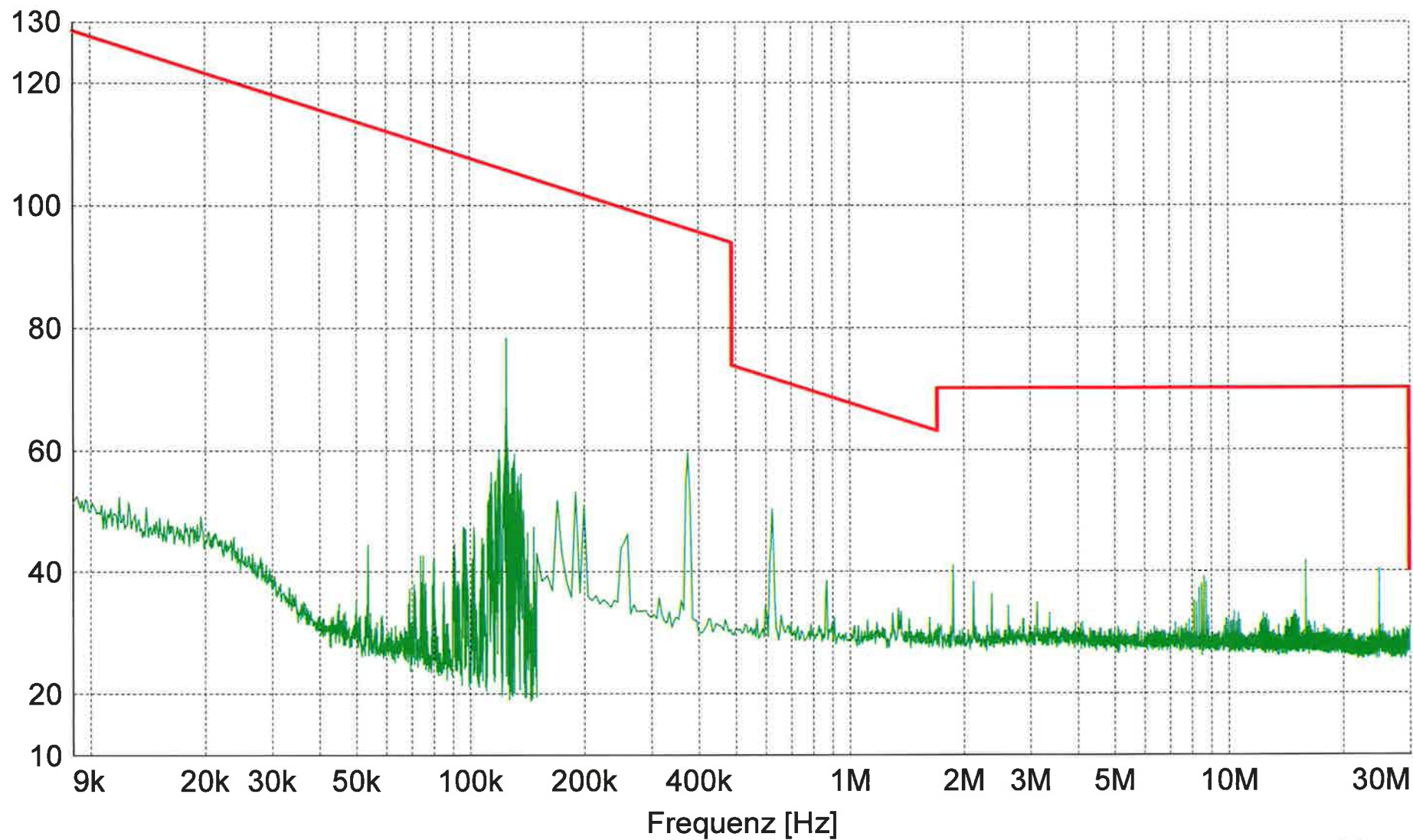
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AUSTRIA

Pegel [dB μ V/m]



MES RFID_gr_F0_pre
LIM FCC ClassB F QP 40dB FCC ClassB, field strength 3m

checked by: *fm*

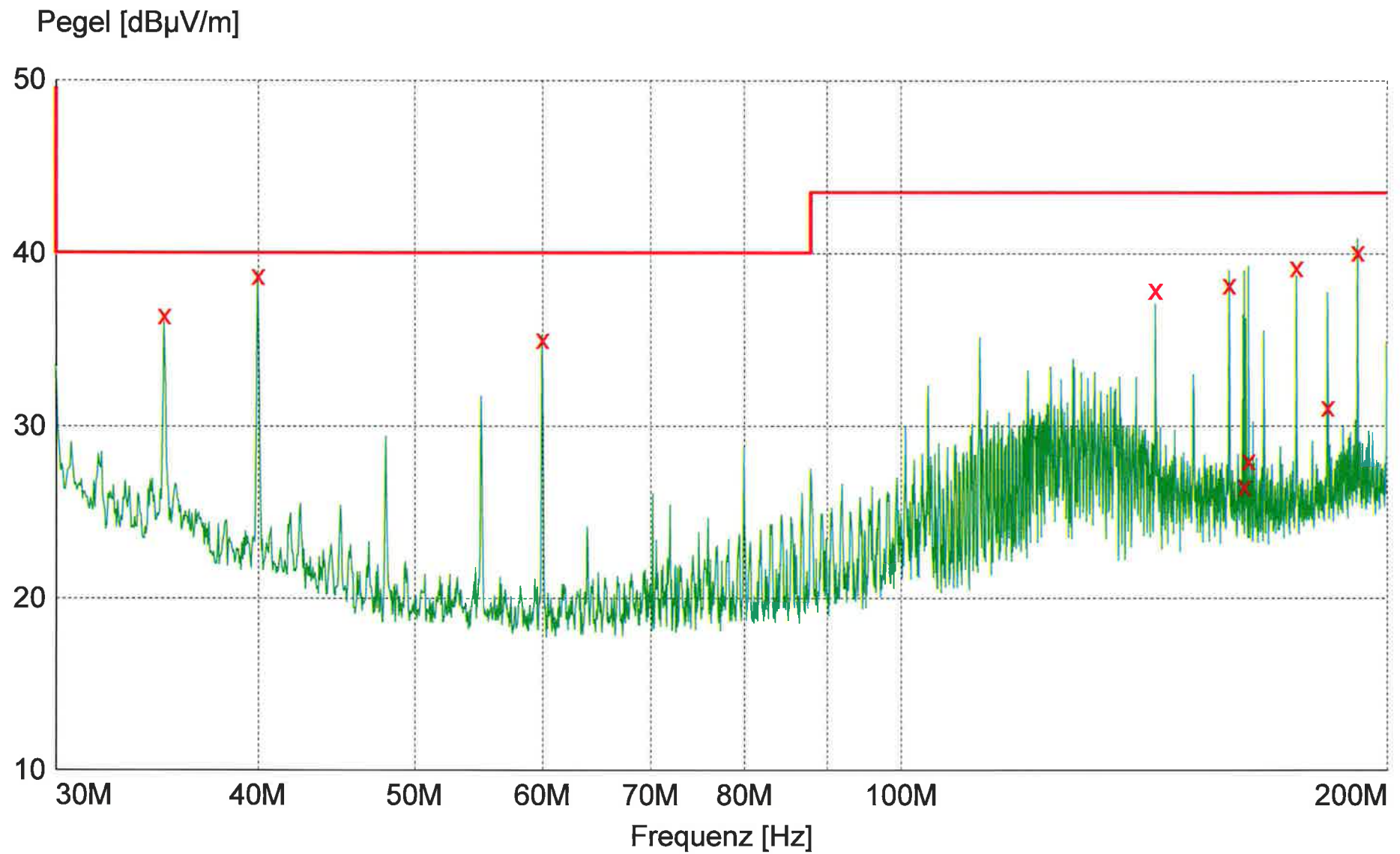
Date: 11.02.2011

Measurement diagram:
5 of 7

Test report reference:
M/EMV-1/126

Department: EMC

Division Medical
Technology/ Communicatio
Technology/ EMC



x x : MES RFID_gr_F1_fin
 — MES RFID_gr_F1_pre
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

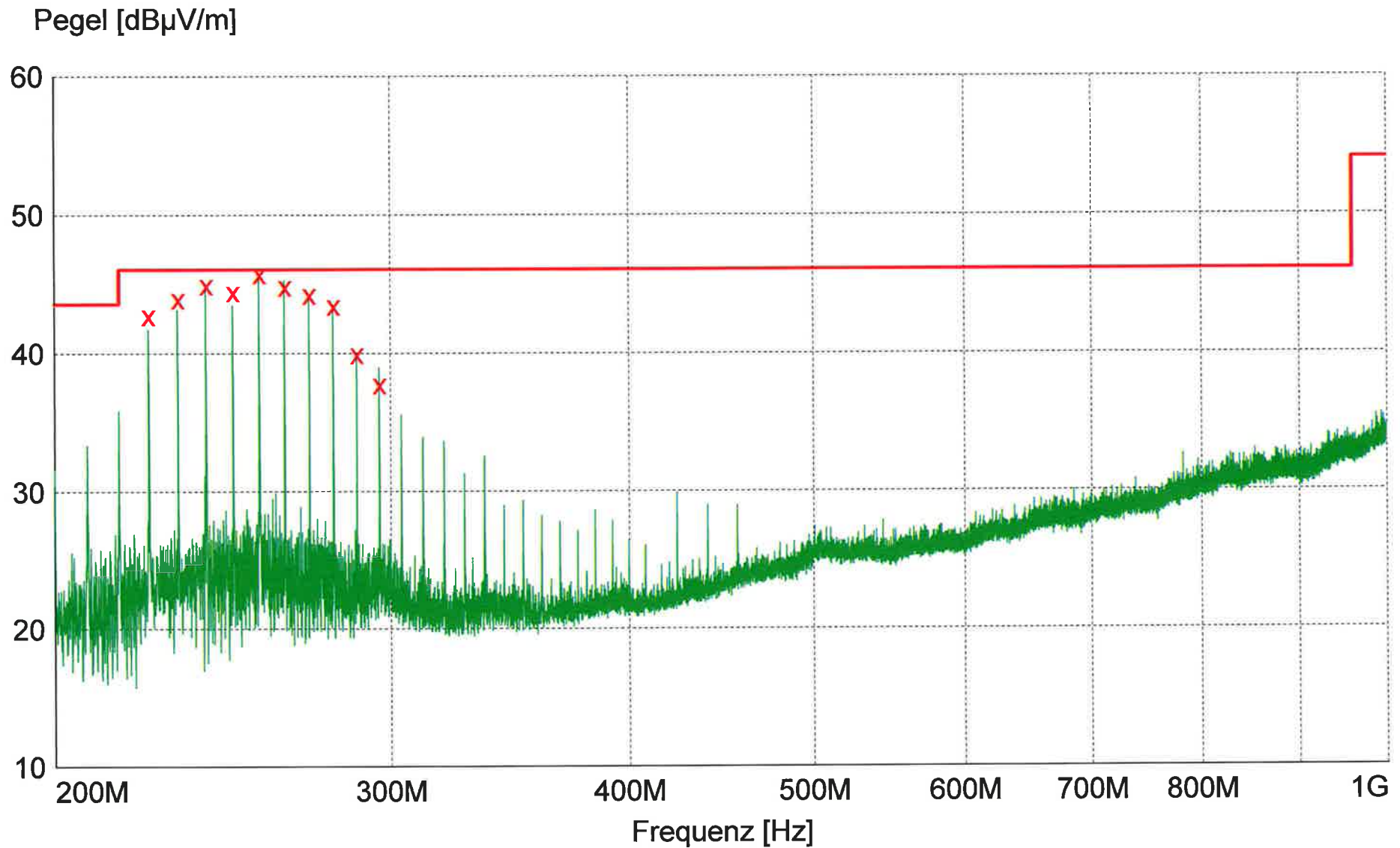
checked by: *[Signature]*
 Date: 11.02.2011

Measurement diagram:
 of *[Signature]*

Test report reference:
 M/EMV-11/126

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Division Medical
 Technology/ Communicatio
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x x :MES RFID_gr_F2_fin
 — MES RFID_gr_F2_pre
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by:
 Date: 11.02.2011

Measurement diagram:
 7 of 14

Test report reference:
 M/EMV-11/126

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