

TEST REPORT
of the accredited test laboratory

TÜV Nr.:M/FG-09/112

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Division:
Medical Technology/
Communication
Technology/ EMC

Department:
Testing Body for
Communication
Technology/ EMC

TÜV*

Applicant: ADCON TELEMETRY GmbH
Inkustraße 24
A-3400 Klosterneuburg

Tested Product: GSM/GPRS telemetry transceiver

FCC-ID: SHXA753GSM-GPRS

Manufacturer: ADCON TELEMETRY GmbH
Inkustraße 24
A-3400 Klosterneuburg

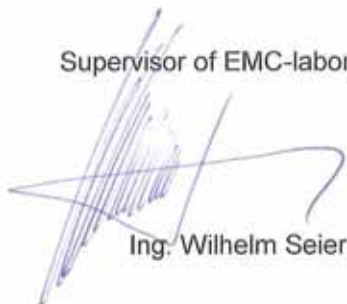
Output power / 2 W @ 850 and **power supply:** 6,2 VDC
field strength: 1 W @ 1900

Frequency range: 824 – 849 and **Channel separation:** 200 kHz
1850 - 1910 MHz

Standard: FCC: 47 CFR 22 and 47 CFR 24

TUV Austria SERVICES GMBH
Test laboratory for EMC

Supervisor of EMC-laboratory:


Ing. Wilhelm Seier



Copy Nbr.: 01

checked by:


Ing. Michael Emminger

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IC 2932K-1

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

LIST OF MEASUREMENTS

The complete list of measurements called for in the standards is given below.

SUBCLAUSE	PARAMETER TO BE MEASURED	PAGE
	Intentional Radiators	
	Test object data	3
22.913	Power Output	4-7
24.232		
22.355	Frequency stability	8-9
24.235		
22.917	Emissions Limits	10-13
24.238		
15.209		
2.989	Occupied Bandwidth	14-25

TEST OBJECT DATA

General EUT Description

This telemetry equipment will be used to collect data from various sensors and transmit it through a GSM/GPRS network. This telemetry equipment will be situated in environment where normally no persons are situated and will work without user interaction.

The GSM Modem used, is capable of operation in the bands 850 MHz and 1900 MHz.

Power Output
850 MHz

§ 22.913

Conducted Measurement

Frequency (MHz)	Power Step	Peak Output Power (dBm)	Average Output Power (dBm)
824,2	5	32,7	32,6
836,6	5	33,1	33,0
848,8	5	32,8	32,7
Measurement uncertainty	± 0,75 dB		

LIMIT

Power Step	Nominal Peak Output Power (dBm)	Tolerance (dB)
5	+ 33	± 2

Test Equipment used: NT-208

Power Output
1900 MHz

§ 24.232

Conducted Measurement

Frequency (MHz)	Power Step	Peak Output Power (dBm)	Average Output Power (dBm)
1850,2	0	28,4	28,3
1880,0	0	28,8	28,7
1909,8	0	29,2	29,0
Measurement uncertainty	$\pm 0,75$ dB		

LIMIT

Power Step	Nominal Peak Output Power (dBm)	Tolerance (dB)
0	+ 30	± 2

Test Equipment used: NT-208

Power Output
850 MHz

§ 22.913

ERP Measurement

Frequency (MHz)	Power Step	Burst Average (dBm)	Modulation Average (dBm)
824,2	5	33,7	21,8
836,6	5	34,1	22,4
848,8	5	34,2	22,4
Measurement uncertainty	± 4 dB		

LIMIT

Power Step	Burst Average ERP (dBm)
5	$\leq 38,5$

Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-125; NT-207; NT-208

Power Output
1900 MHz

§ 24.232

EIRP Measurement

Frequency (MHz)	Power Step	Burst Average (dBm)	Modulation Average (dBm)
1850,2	0	30,5	18,7
1880,0	0	30,6	18,9
1909,8	0	30,5	18,7
Measurement uncertainty	± 4 dB		

LIMIT

Power Step	Burst Average EIRP (dBm)
0	≤ 33

Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-125; NT-207; NT-208

Frequency stability
850 MHz

§ 22.355

Frequency error vs. Supply voltage

The power supply voltage is nominal 6,2 VDC. The shut off voltage is 5,5 VDC. The GSM module power supply is regulated to 3,75 VDC. This voltage stays constant over the full supply voltage range from 5,5 VDC to 10 VDC. Because of this there were no change in frequency stability measureable over the full power supply range. This also applies to the external power supply input, which has an input voltage range of 10,5 to 20 VDC.

Frequency error vs. Temperature

Temperature °C	Frequency Error Hz	Frequency Error ppm
-30	-10	-0,012
-20	-5	-0,006
-10	-5	-0,006
±0	-5	-0,006
+10	-5	-0,006
+20	-5	-0,006
+30	-5	-0,006
+40	-10	-0,012
+50	-15	-0,018

LIMIT

According to GSM standards the frequency stability of the carrier shall be accurate to within 0,1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 22.355, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Frequency stability
1900 MHz

§ 24.235

Frequency error vs. Supply voltage

The power supply voltage is nominal 6,2 VDC. The shut off voltage is 5,5 VDC. The GSM module power supply is regulated to 3,75 VDC. This voltage stays constant over the full supply voltage range from 5,5 VDC to 10 VDC. Because of this there were no change in frequency stability measureable over the full power supply range. This also applies to the external power supply input, which has an input voltage range of 10,5 to 20 VDC.

Frequency error vs. Temperature

Temperature °C	Frequency Error Hz	Frequency Error ppm
-30	+15	+0,008
-20	+20	+0,010
-10	+20	+0,010
±0	+20	+0,010
+10	+15	+0,008
+20	-10	-0,005
+30	-15	-0,008
+40	-20	-0,010
+50	-20	-0,010

LIMIT

According to GSM standards the frequency stability of the carrier shall be accurate to within 0,1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Emissions Limits
850 MHz

§ 22.917

§ 15.209

LIMIT

22.917:

The power of any emission outside the authorized operating frequency ranges must be attenuated below the transmitter power (P, in watts) by at least $43+10\log(P)$ dB. In the used power range this means a constant absolute limit of -13 dBm. Although the Limits of 15.209 are in field strength levels, the limits are far below that one of 22.917. So for all radiated measurements the 15.209 limit was taken to show compliance as digital device also.

Conducted Emissions

CHANNEL					
128 (824,2 MHz)		190 (836,6 MHz)		251 (848,8 MHz)	
Frequency (MHz)	Level (dBm)	Frequency (MHz)	Level (dBm)	Frequency (MHz)	Level (dBm)
2472,6	-45,0	2509,8	-43,9	2546,4	-45,9
3296,8	-39,4	3346,4	-41,9	3395,2	-48,8
4121,0	-54,1	All others	< -55	All others	< -55
All others	< -55				

Test Equipment used: NT-207; NT-208

Emissions Limits
1900 MHz

§ 24.238

§ 15.209

LIMIT

24.238:

On any frequency outside a licensee's frequency block within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in watts) by at least $43+10\log(P)$ dB. In the used power range this means a constant absolute limit of -13 dBm. Although the Limits of 15.209 are in field strength levels, the limits are far below that one of 24.238. So for all radiated measurements the 15.209 limit was taken to show compliance as digital device also.

Conducted Emissions

CHANNEL					
512 (1850,2 MHz)		661 (1880 MHz)		810 (1909,8 MHz)	
Frequency (MHz)	Level (dBm)	Frequency (MHz)	Level (dBm)	Frequency (MHz)	Level (dBm)
1947,8	-53,6	1947,8	-53,2	1947,8	-53,3
3700,4	-48,6	3760	-49,6	3819,6	-47,6
5550,6	-49,6	5640	-45,7	5729,4	-39,5
7400,8	-51,5	7520	-50,1	7639,2	-49,0
9251,0	-45,5	9400	-40,5	9549,0	-37,2
11101,2	-38,3	11280	-39,8	11458,8	-39,7
All others	< -55	All others	< -55	15278,4	-54,3
				All others	< -55

Test Equipment used: NT-207; NT-208

Emissions Limits
850 MHz

§ 22.917

§ 15.209

Radiated Emissions

CHANNEL					
128 (824,2 MHz)		190 (836,6 MHz)		251 (848,8 MHz)	
Frequency (MHz)	Level (dBµV/m)	Frequency (MHz)	Level (dBµV/m)	Frequency (MHz)	Level (dBµV/m)
≤ 500	< 35 QP	≤ 500	< 35 QP	≤ 500	< 35 QP
≤ 1000	< 45 QP	≤ 1000	< 45 QP	≤ 1000	< 45 QP
> 1000	< 45 AV	> 1000	< 45 AV	> 1000	< 45 AV

LIMIT 15.209

Frequency (MHz)	Limit (dBµV/m)	Measurement distance (m)
30 - 88	40	3
88 - 216	43,5	3
216 - 960	46	3
Above 960	54	3

Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-125; NT-207; NT-208

Measurement diagrams in Annex 2.

Emissions Limits
1900 MHz

§ 24.238
§ 15.209

Radiated Emissions

CHANNEL					
512 (1850,2 MHz)		661 (1880 MHz)		810 (1909,8 MHz)	
Frequency (MHz)	Level (dBµV/m)	Frequency (MHz)	Level (dBµV/m)	Frequency (MHz)	Level (dBµV/m)
≤ 500	< 35 QP	≤ 500	< 35 QP	≤ 500	< 35 QP
≤ 1000	< 40 QP	≤ 1000	< 40 QP	≤ 1000	< 40 QP
> 1000	< 45 AV	> 1000	< 45 AV	> 1000	< 45 AV

LIMIT 15.209

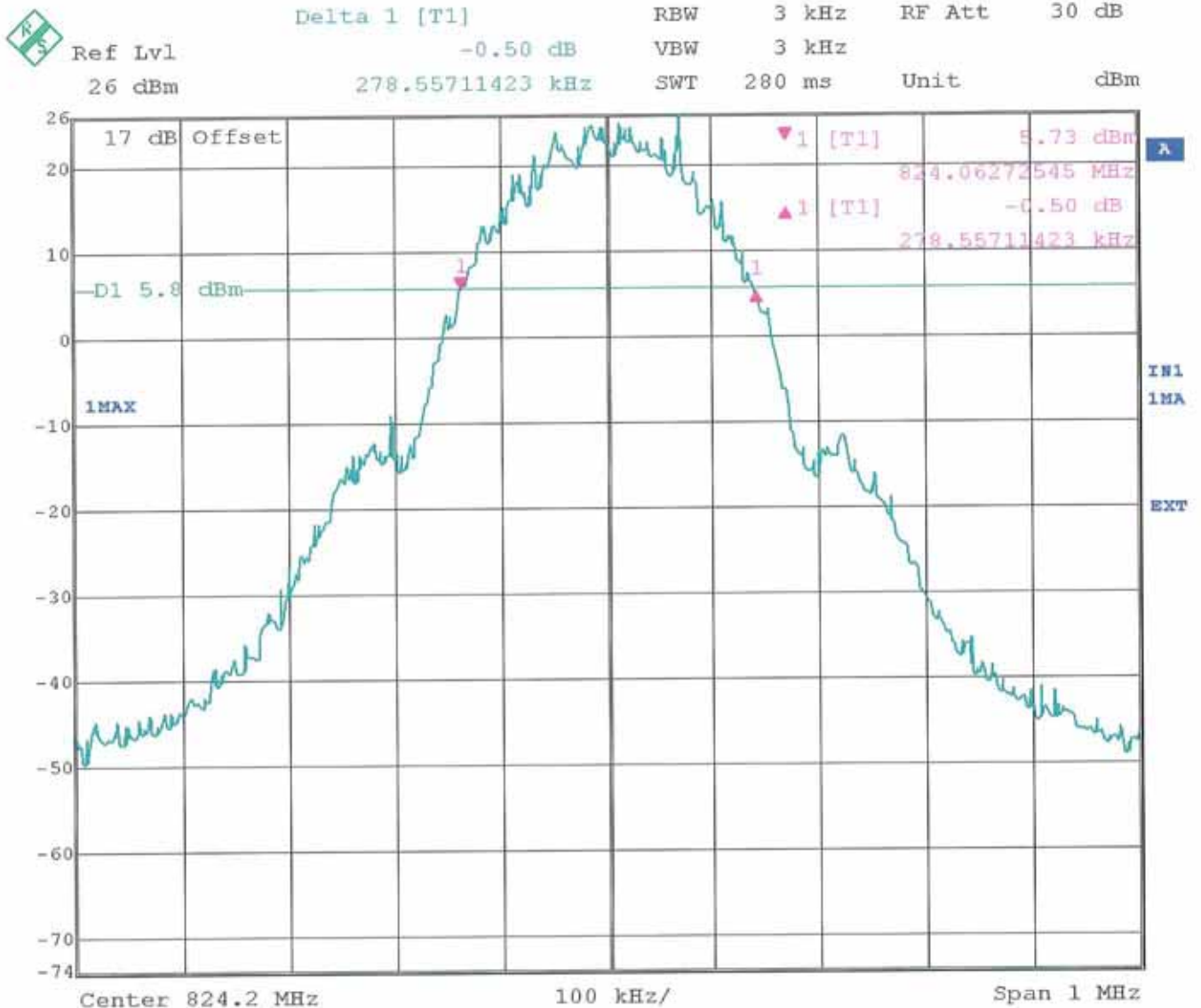
Frequency (MHz)	Limit (dBµV/m)	Measurement distance (m)
30 - 88	40	3
88 - 216	43,5	3
216 - 960	46	3
Above 960	54	3

Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-125; NT-207; NT-208

Measurement diagrams in Annex 2. Although the measurements were made up to the 10th harmonic, the diagrams only show the frequency range up to 18 GHz. This is because the measurements above 18 GHz are not yet automatized and we were not able to plot the Spectrum analyzer display.

OCCUPIED BANDWIDTH – 20 dB BANDWIDTH
850 MHz

§ 2.989



Date: 17.FEB.2009 11:03:16

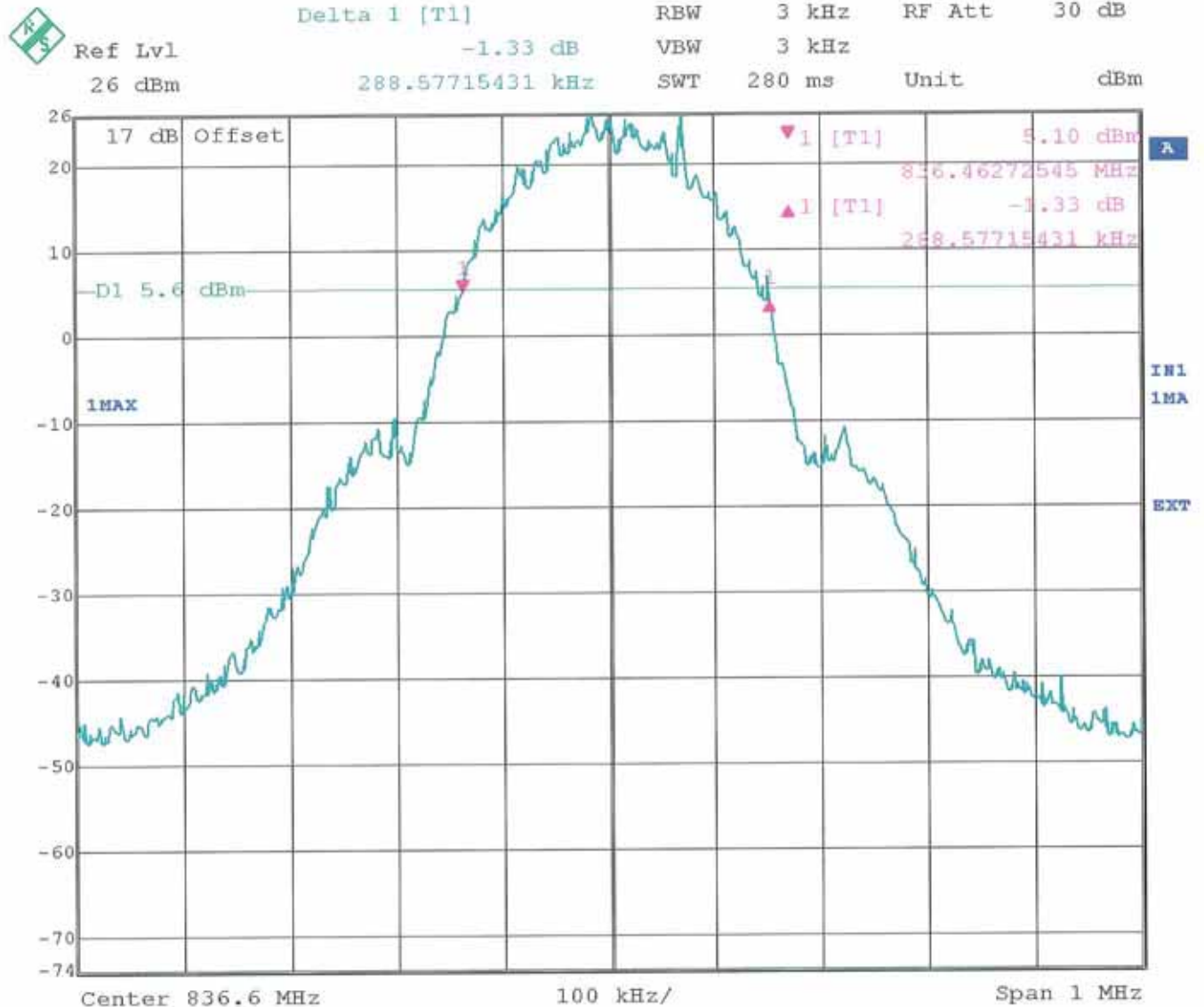
channel 128

Bandwidth: 278,56 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 20 dB BANDWIDTH
850 MHz

§ 2.989



Date: 17.FEB.2009 11:08:43

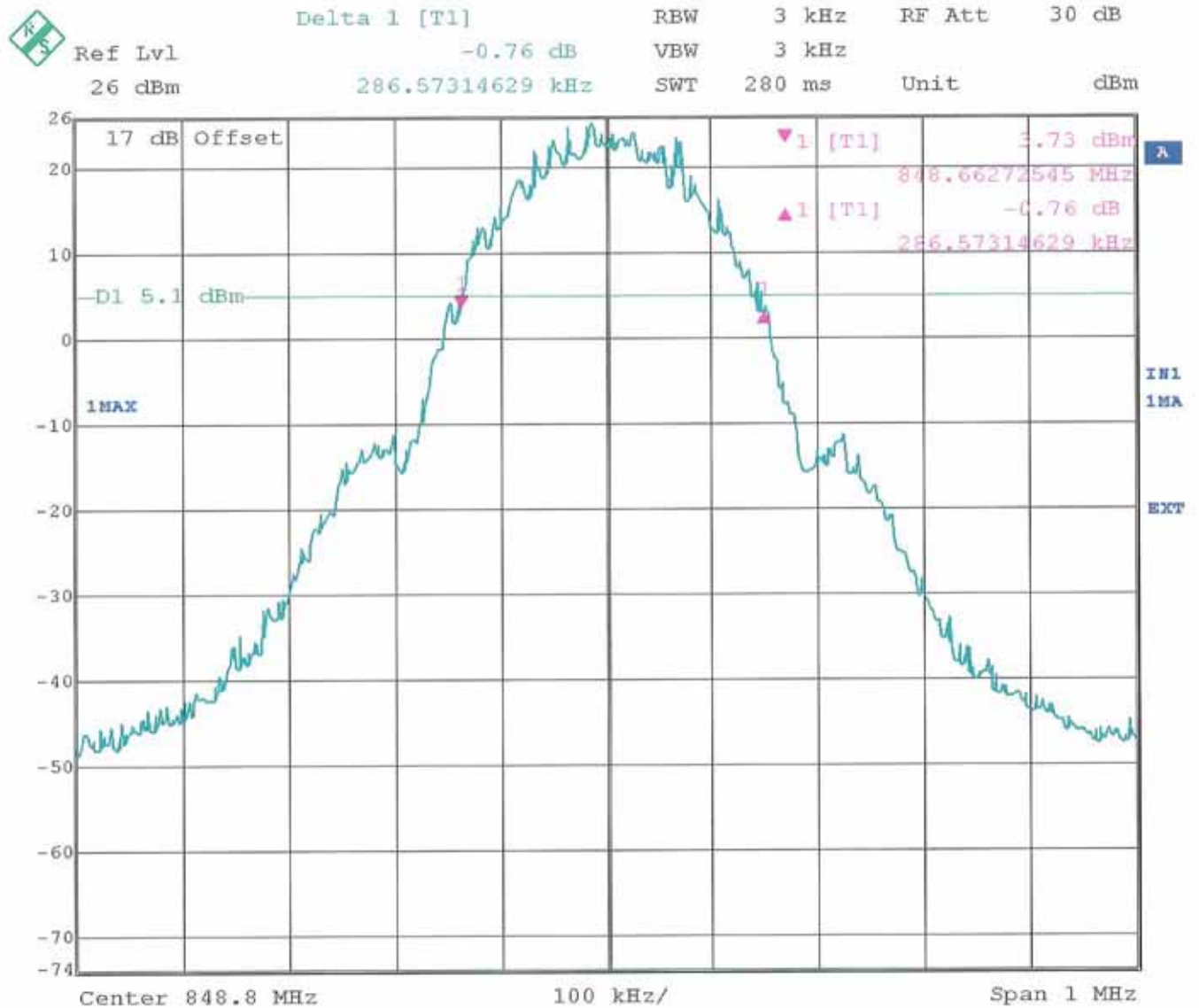
channel 190

Bandwidth: 288,58 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 20 dB BANDWIDTH
850 MHz

§ 2.989



Date: 17.FEB.2009 11:11:43

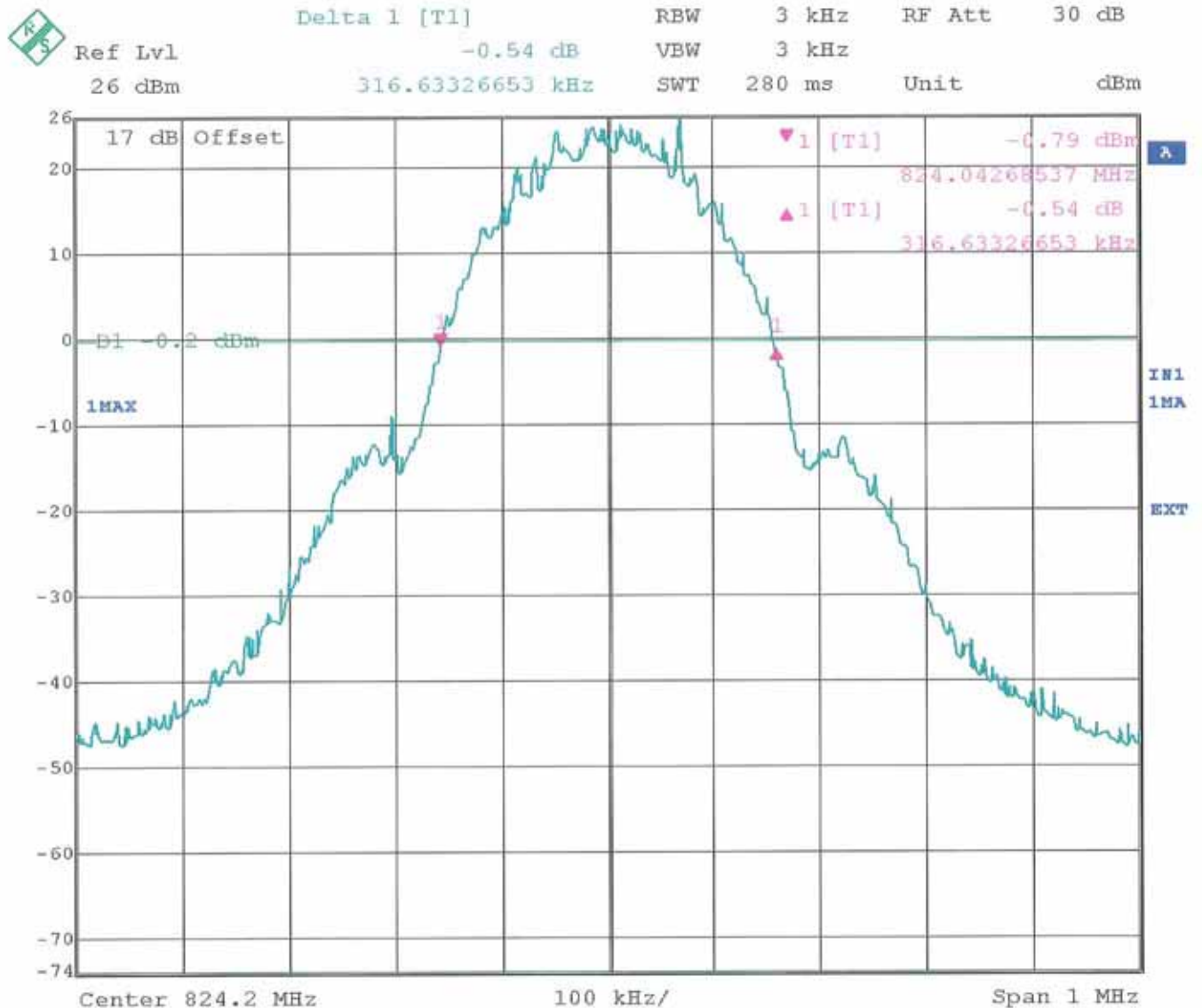
channel 251

Bandwidth: 286,57 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 26 dB BANDWIDTH
850 MHz

§ 2.989



Date: 17.FEB.2009 11:04:00

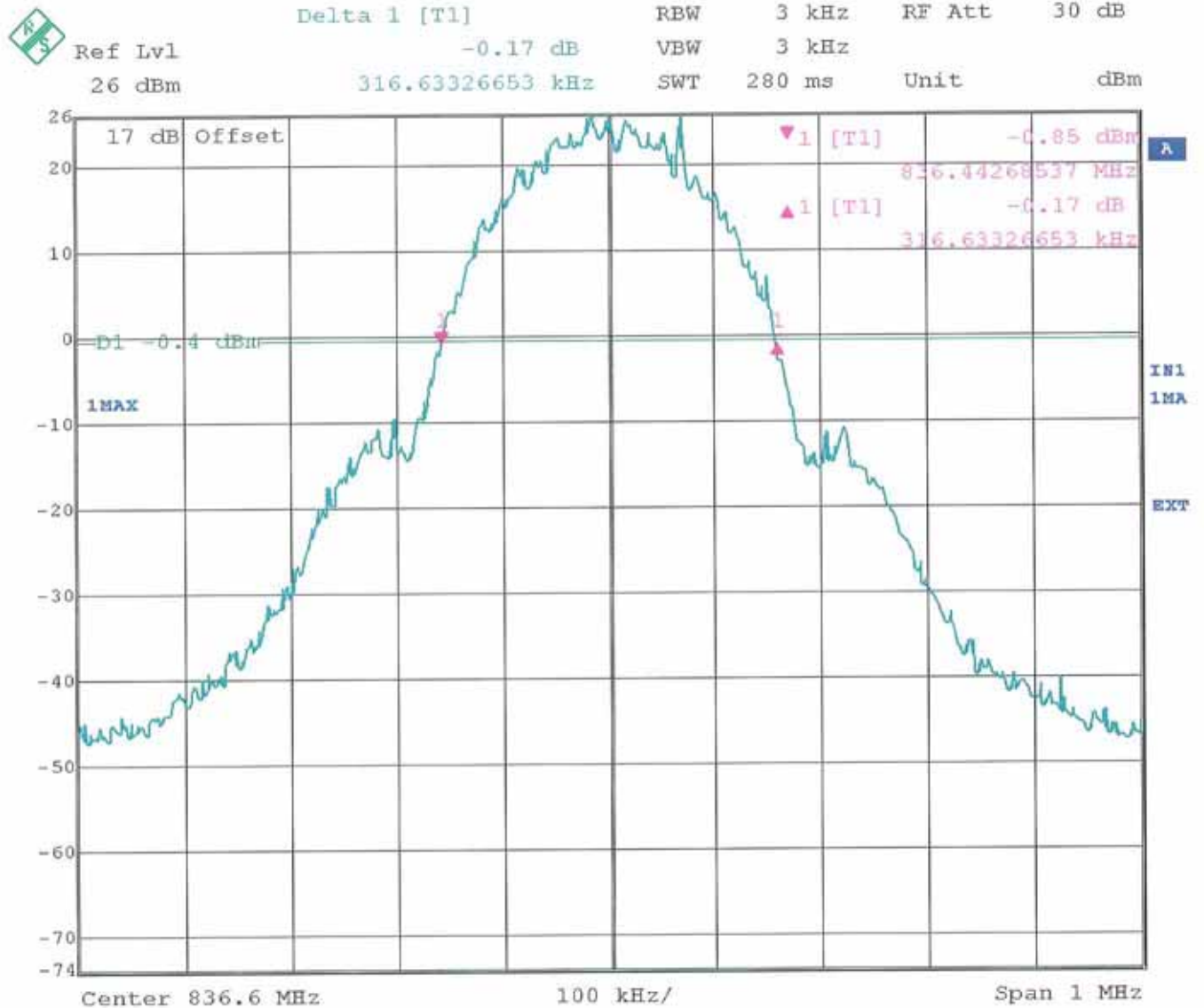
channel 128

Bandwidth: 316,63 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 26 dB BANDWIDTH
850 MHz

§ 2.989



Date: 17.FEB.2009 11:09:24

channel 190

Bandwidth: 316,63 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 26 dB BANDWIDTH
850 MHz

§ 2.989



Date: 17.FEB.2009 11:12:42

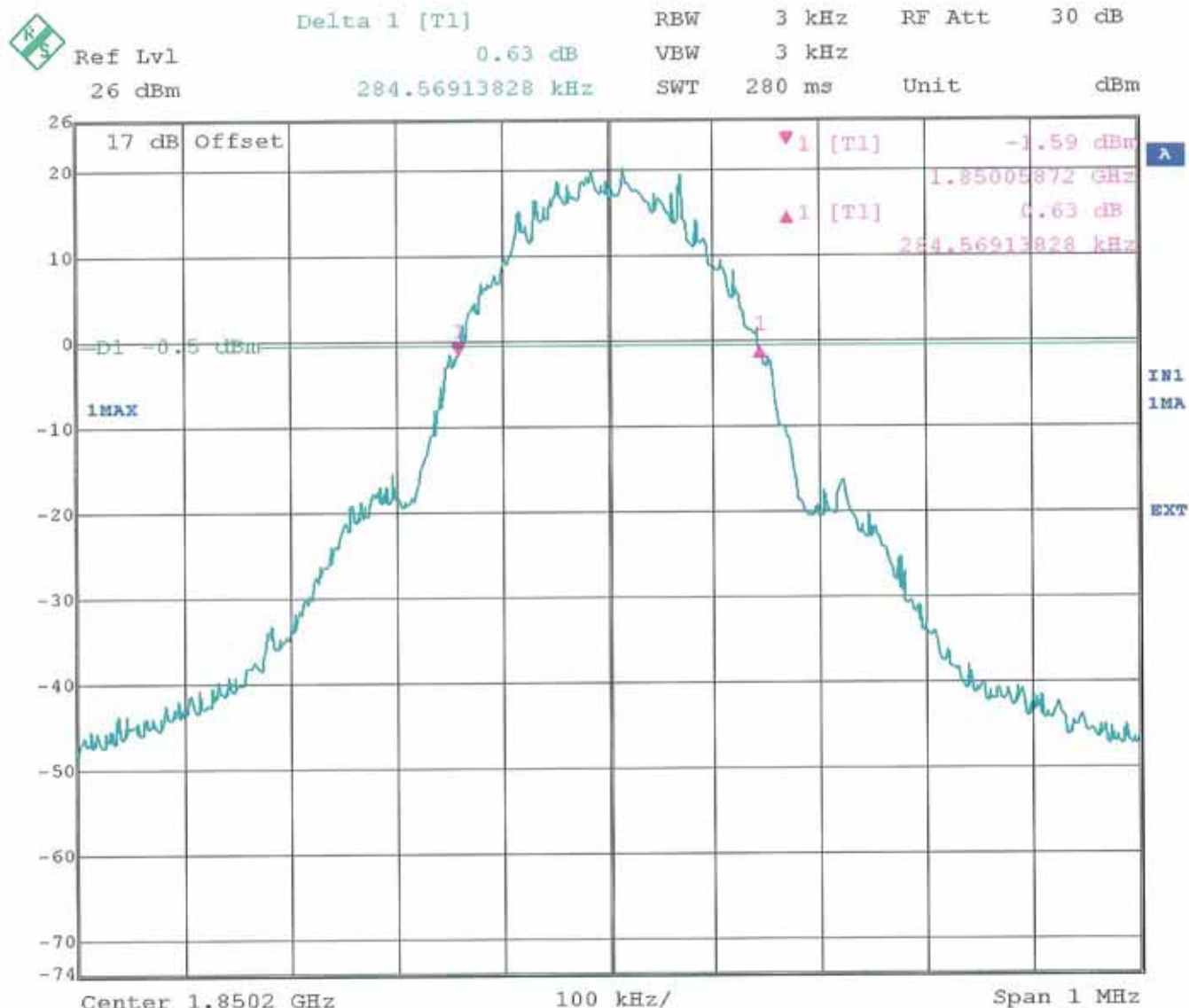
channel 251

Bandwidth: 316,63 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 20 dB BANDWIDTH
1900 MHz

§ 2.989



Date: 17.FEB.2009 10:50:48

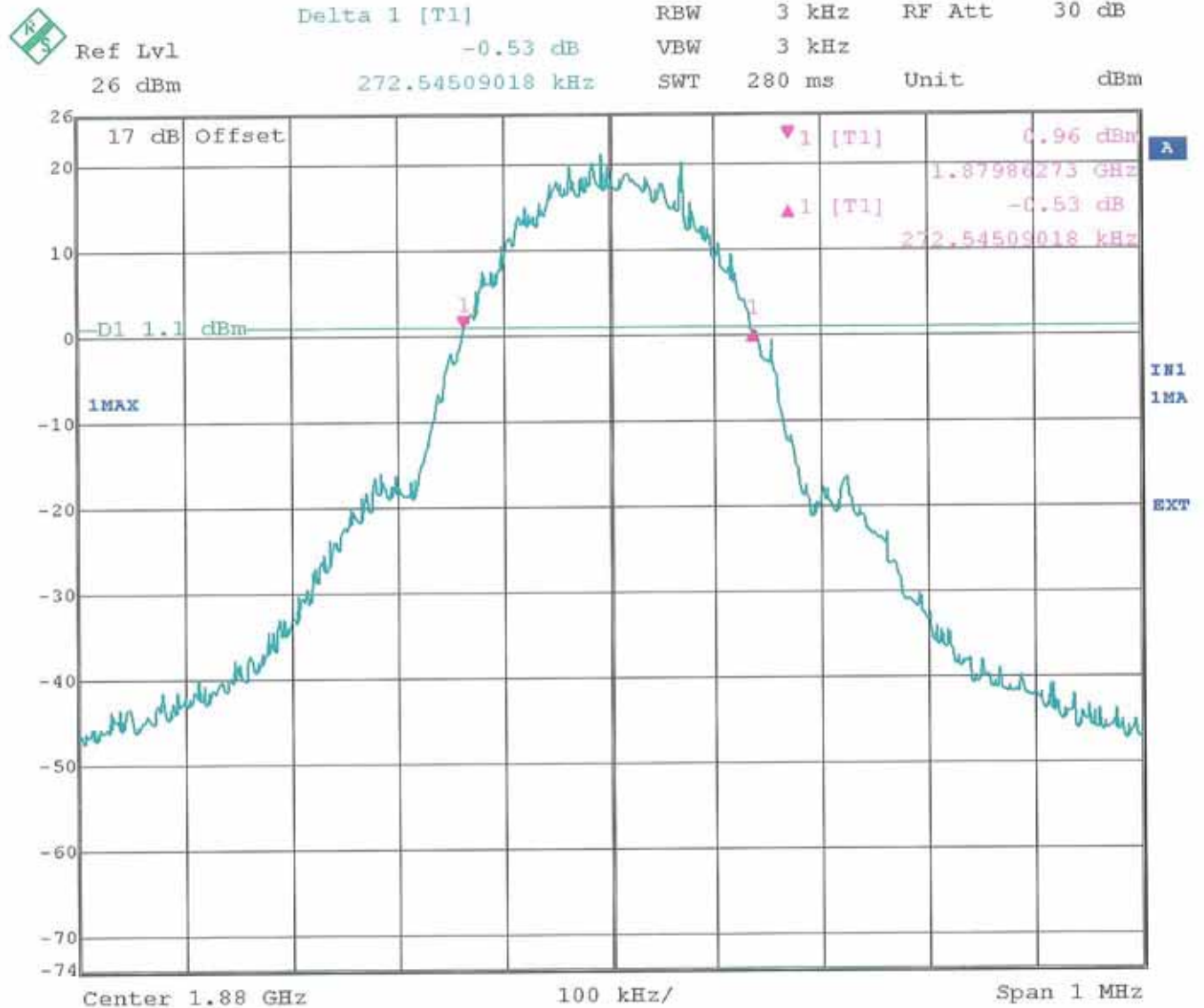
channel 512

Bandwidth: 284,57 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 20 dB BANDWIDTH
1900 MHz

§ 2.989



Date: 17.FEB.2009 10:47:59

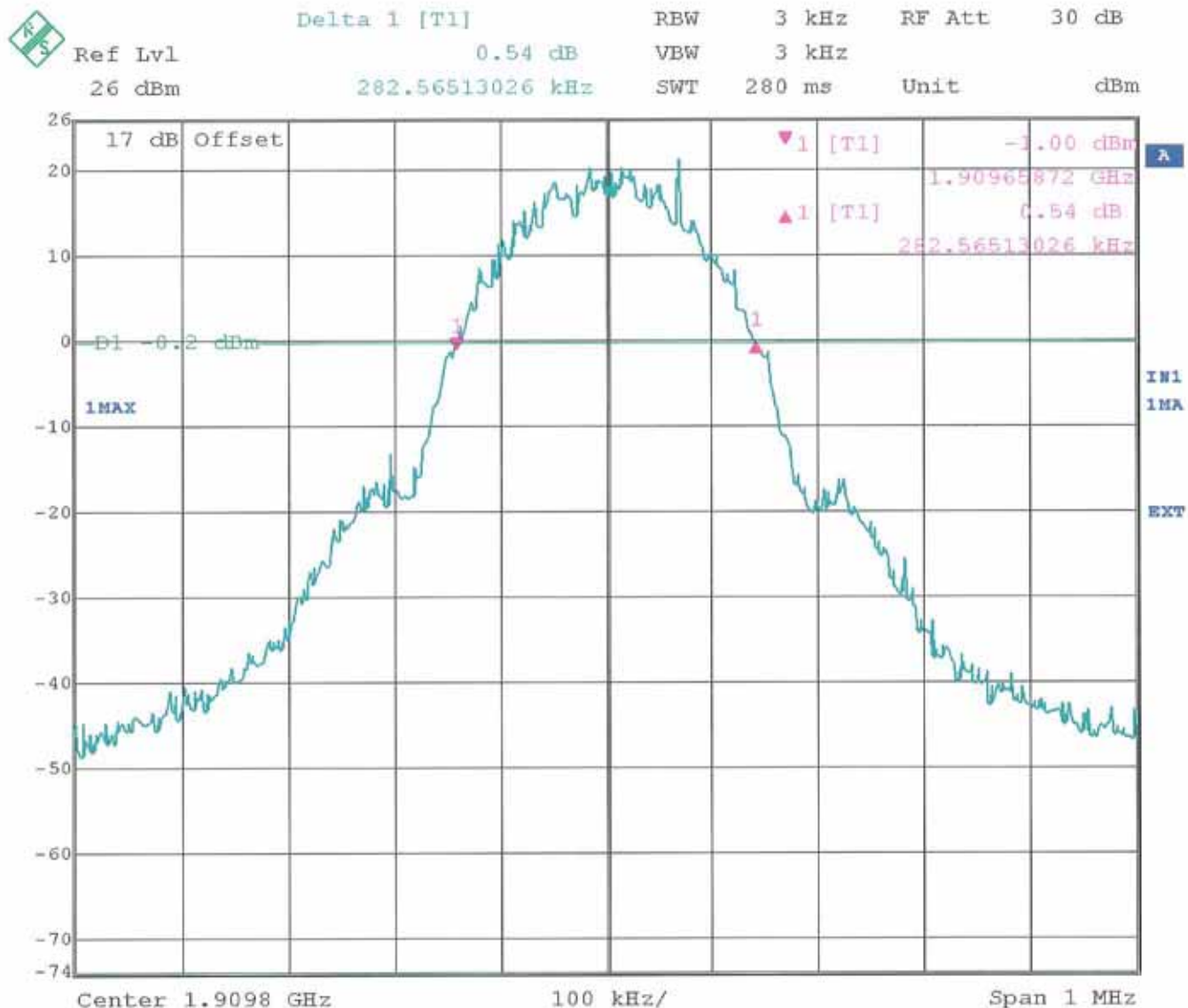
channel 661

Bandwidth: 272,55 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 20 dB BANDWIDTH
1900 MHz

§ 2.989



Date: 17.FEB.2009 10:43:56

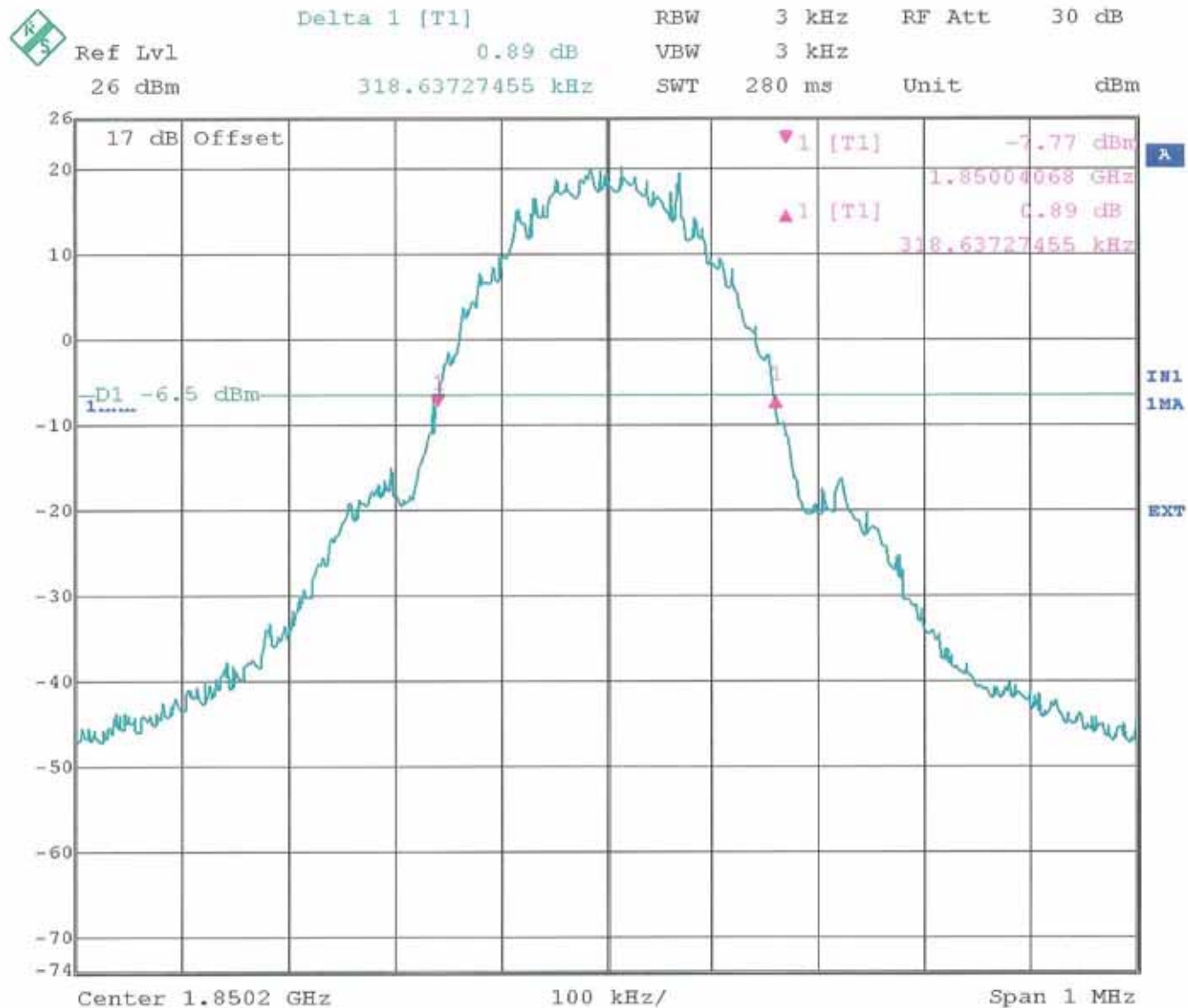
channel 810

Bandwidth: 282,57 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 26 dB BANDWIDTH
1900 MHz

§ 2.989



Date: 17.FEB.2009 10:51:46

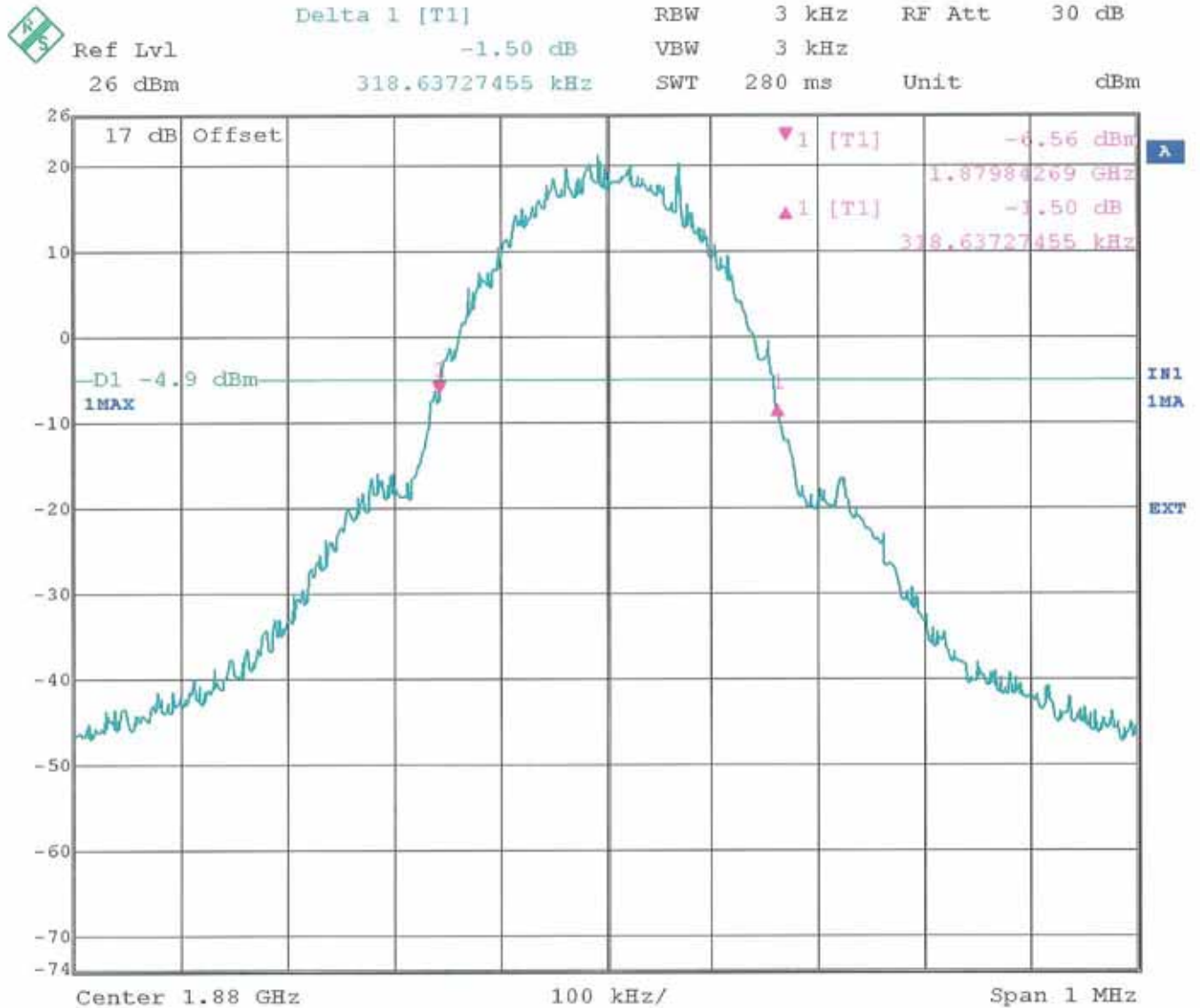
channel 512

Bandwidth: 318,64 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 26 dB BANDWIDTH
1900 MHz

§ 2.989



Date: 17.FEB.2009 10:48:38

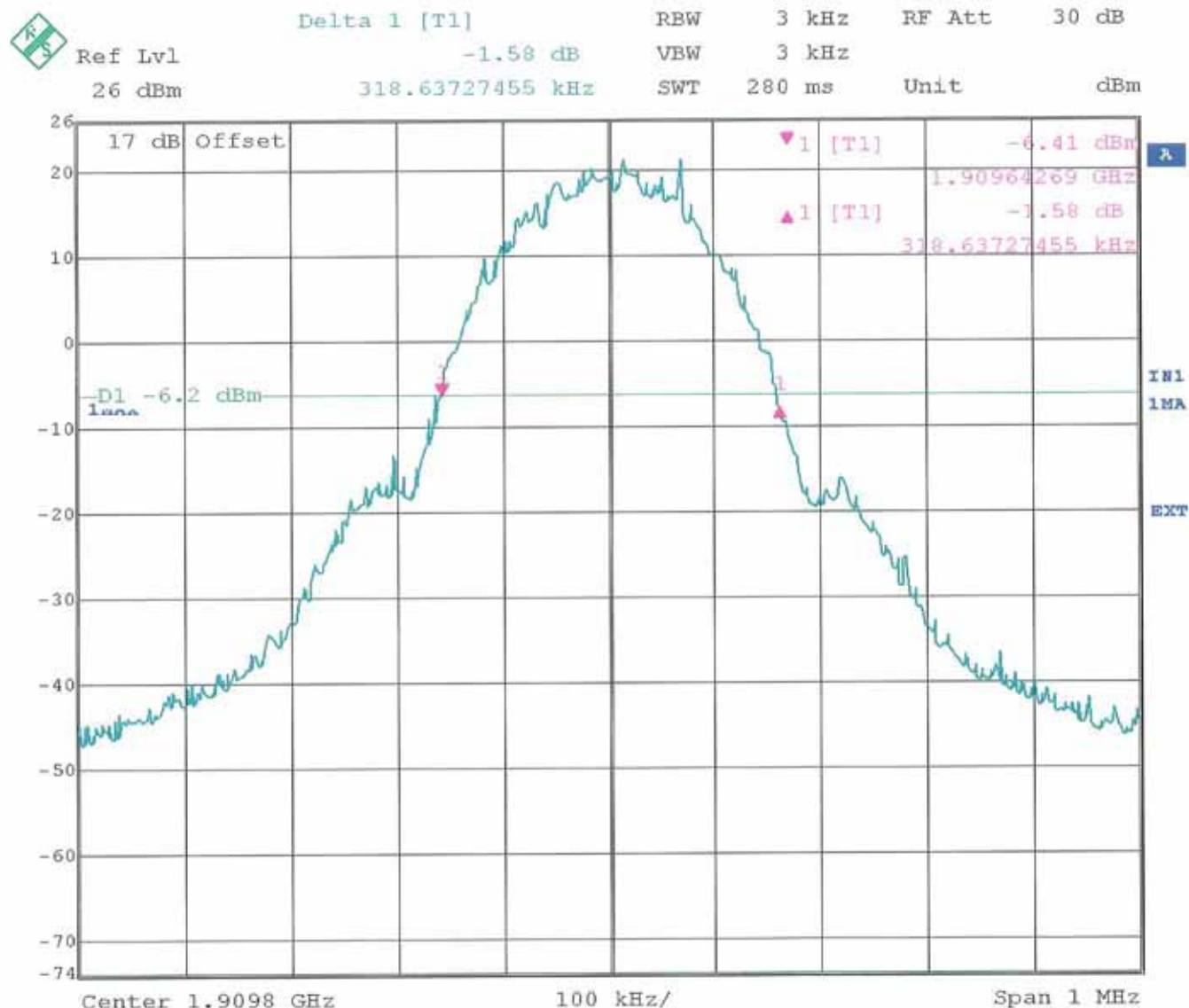
channel 661

Bandwidth: 318,64 kHz

TEST EQUIPMENT USED: NT-207; NT-208

OCCUPIED BANDWIDTH – 26 dB BANDWIDTH
1900 MHz

§ 2.989



Date: 17.FEB.2009 10:45:44

channel 810

Bandwidth: 318,64 kHz

TEST EQUIPMENT USED: NT-207; NT-208

Appendix 1

Test equipment used

☐	Anechoic Chamber with 3m measurement distance	NT-100	☐	Spectrum analyzer – FSP7 9 kHz – 7 GHz	NT-200
☐	Stripline according to ISO 11452-5	NT-108	☐	ESVP - Test receiver 20 - 1000 MHz	NT-201
☐	MA 240 - Antenna mast 1 - 4 m height	NT-110	☐	ESPC - Test receiver 9 kHz - 2,5 GHz	NT-203
☐	DS 412 - Turntable 0 - 400 ° Azimuth	NT-111	☐	ESI26 – Test receiver 20 Hz – 26,5 GHz	NT-207
☐	HD 100 Controller Mast+Turntable	NT-112	☐	Digital Radio Tester CMU200	NT-208
☐	HUF-Z2 - Bicon. Antenna 20 - 300 MHz	NT-120	☐	Noise-gen., ITU-R 559-2 20 Hz – 20 kHz	NT-209
☐	HUF-Z3 - Log. Per. Antenna 200 - 1000 MHz	NT-121	☐	CMTA - Radiocommunication analyzer ; 0,1 - 1000 MHz	NT-210
☐	HFH-Z2 - Loop Antenna 9 kHz - 30 MHz	NT-122	☐	3271 - Spectrum analyzer 100 Hz - 26,5 GHz	NT-211
☐	HFH-Z6 - Rod Antenna 9 kHz - 30 MHz	NT-123	☐	Radiocommunication analyzer Marconi 2945A	NT-212
☐	3121C - Dipole Antenna 28 - 1000 MHz	NT-124	☐	2855S - Communication analyzer	NT-213
☐	3115 - Horn Antenna 1 - 18 GHz (immunity)	NT-125	☐	Mixer M28HW 26,5 GHz - 40 GHz	NT-214
☐	3116 - Horn Antenna 18 - 40 GHz	NT-126	☐	Diode Detector 0,01 GHz - 26,5 GHz	NT-215
☐	SAS-200/543 - Bicon. Antenna 20 MHz - 300 MHz	NT-127	☐	RubiSource T&M Timing reference	NT-216
☐	AT-1080 - Log. Per. Antenna 80 - 1000 MHz	NT-128	☐	Radiocommunication analyzer SWR 1180 MD	NT-217
☐	HK-116 - bicon. Antenna 20 MHz - 300 MHz	NT-129	☐	Mixer M19HWD 40 GHz – 60 GHz	NT-218
☐	HK-116 - bicon. Antenna 20 MHz - 300 MHz	NT-130	☐	Mixer M12HWD 60 GHz – 90 GHz	NT-219
☐	3146 - Log. Per. Antenna 200 – 1000 MHz	NT-131	☐	TDS - 540 DSO Digital scope	NT-220
☐	Loop Antenna H-Field	NT-132	☐	DSO9104 Digital scope	NT-220/1
☐	Horn Antenna 500 MHz - 2900 MHz	NT-133	☐	TPS 2014 Digital scope	NT-222
☐	Horn Antenna 500 MHz - 6000 MHz	NT-133/1	☐	Artificial Ear according to IEC 60318	NT-224
☐	Log. per. Antenna 800 MHz - 2500 MHz	NT-134	☐	1 kHz Sound calibrator	NT-225
☐	Log. per. Antenna 800 MHz - 2500 MHz	NT-135	☐	B10 - Harmonics and flicker analyzer	NT-232
☐	BiConiLog Antenna 26 MHz – 2000 MHz	NT-137	☐	SRM-3000 Spectrum analyzer	NT-233
☐	Conical Dipol Antenna PCD8250	NT-138	☐	E-field probe SRM 75 MHz – 3 GHz	NT-234
☐	HF 906 - Horn Antenna 1 - 18 GHz (emission)	NT-139	☐	Hall-Teslameter ETM-1	NT-241
☐	HZ-1 Antenna tripod	NT-150	☐	EFA-3 H-field- / E-field probe	NT-243
☐	BN 1500 Antenna tripod	NT-151	☐	E-field measuring instrument EMR-200; 100 kHz – 3 GHz	NT-244
☐	Ant. tripod for EN61000-4-3 Model TP1000A	NT-156	☐	E-field probe 100 kHz – 3 GHz	NT-245
☐	Power quality analyzer Fluke 1760 (complete set)	NT-160 - NT-172	☐	Magnetic field Sensor 300 kHz – 30 MHz	NT-246

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Appendix 1 (continued) Test equipment used

☐	E-field probe 3 MHz – 18 GHz	NT-247	☐	VCS 500-M6 Surge-Generator	NT-326
☐	ELT-400 1 Hz – 400 kHz	NT-249	☐	BTA-250 - RF-Amplifier 9 kHz - 220 MHz / 250 W	NT-330
☐	MDS 21 - Absorbing clamp 30 - 1000 MHz	NT-250	☐	T82-50 RF-Amplifier 2 GHz – 8 GHz	NT-331
☐	FCC-203I EM Injection clamp	NT-251	☐	500W1000M7 - RF-Amplifier 80 - 1000 MHz / 500 W	NT-332
☐	FCC-203I-DCN Ferrite decoupling network	NT-252	☐	AS0102-65R - RF-Amplifier 1 GHz - 2 GHz	NT-333
☐	PR50 Current Probe	NT-253	☐	APA01 - RF-Amplifier 0,5 GHz – 2,5 GHz	NT-334
☐	PR630 Current Probe	NT-254	☐	Preamplifier 1 GHz - 4 GHz	NT-335
☐	Fluke 87 V True RMS Multimeter	NT-260	☐	Preamplifier for GPS MKU 152 A	NT-336
☐	Model 2000 Digital Multimeter	NT-261	☐	Preamplifier 100 MHz – 23 GHz	NT-337
☐	Fluke 87 V Digital Multimeter	NT-262/1	☐	DC Block 10 MHz – 18 GHz Model 8048	NT-338
☐	ESH2-Z5-U1 Artificial mains network 4x25A	NT-300	☐	2-97201 Electronic load	NT-341
☐	ESH3-Z5-U1 Artificial mains network 2x10A	NT-301	☐	TSX3510P - Power supply 0-30 V / 0 - 10 A	NT-344
☐	ESH3-Z6-U1 Artificial mains network 1x100A	NT-302	☐	TSX3510P - Power supply 0-30 V / 0 - 10 A	NT-345
☐	ESH3-Z4 T-Artificial network	NT-303	☐	VDS 200 Mobil-impuls-generator	NT-350
☐	PHE 4500/B Power amplifier	NT-304	☐	LD 200 Mobil-impuls-generator	NT-351
☐	EZ10 T-Artificial Network	NT-305	☐	MPG 200 Mobil-Impuls-Generators	NT-352
☐	ENY22 Artificial Network	NT-308	☐	EFT 200 Mobil-impuls-generator	NT-353
☐	ENY41 Artificial Network	NT-309	☐	AN 200 S1 Artificial Network	NT-354
☐	SMG - Signal generator 0,1 - 1000 MHz	NT-310	☐	FP-EFT 32M 3 ph. Coupling filter (Burst)	NT-400/1
☐	SMA100A - Signal generator 9 kHz - 6 GHz	NT-310/1	☐	PHE 4500 - Mains impedance network	NT-401
☐	PM 5518 TXVPS Video generator	NT-311	☐	IP 6.2 Coupling filter for data lines (Surge)	NT-403
☐	RefRad Reference generator	NT-312	☐	TK 9421 High Power Volt. Probe 150 kHz - 30 MHz	NT-409
☐	SMP 02 Signal generator 10 MHz - 20 GHz	NT-313	☐	ESH2-Z3 - Probe 9 kHz - 30 MHz	NT-410
☐	40 MHz Arbitrary Generator TGA1241	NT-315	☐	IP 4 - Capacitive clamp (Burst)	NT-411
☐	Artificial mains network NSLK 8127-PLC	NT-316	☐	Highpass-Filter 100 MHz – 3 GHz	NT-412
☐	PEFT - Burst generator up to 4 kV	NT-320	☐	Highpass-Filter 600 MHz – 4 GHz	NT-413
☐	ESD 30 System up to 25 kV	NT-321	☐	Highpass-Filter 1250 MHz – 4 GHz	NT-414
☐	PSURGE 4.1 Surge generator	NT-324	☐	Highpass-Filter 1800 MHz – 16 GHz	NT-415
☐	TRANSIENT 1000 Immunity test system	NT-325	☐	Highpass-Filter 3500 MHz – 18 GHz	NT-416

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Appendix 1 (continued) Test equipment used

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

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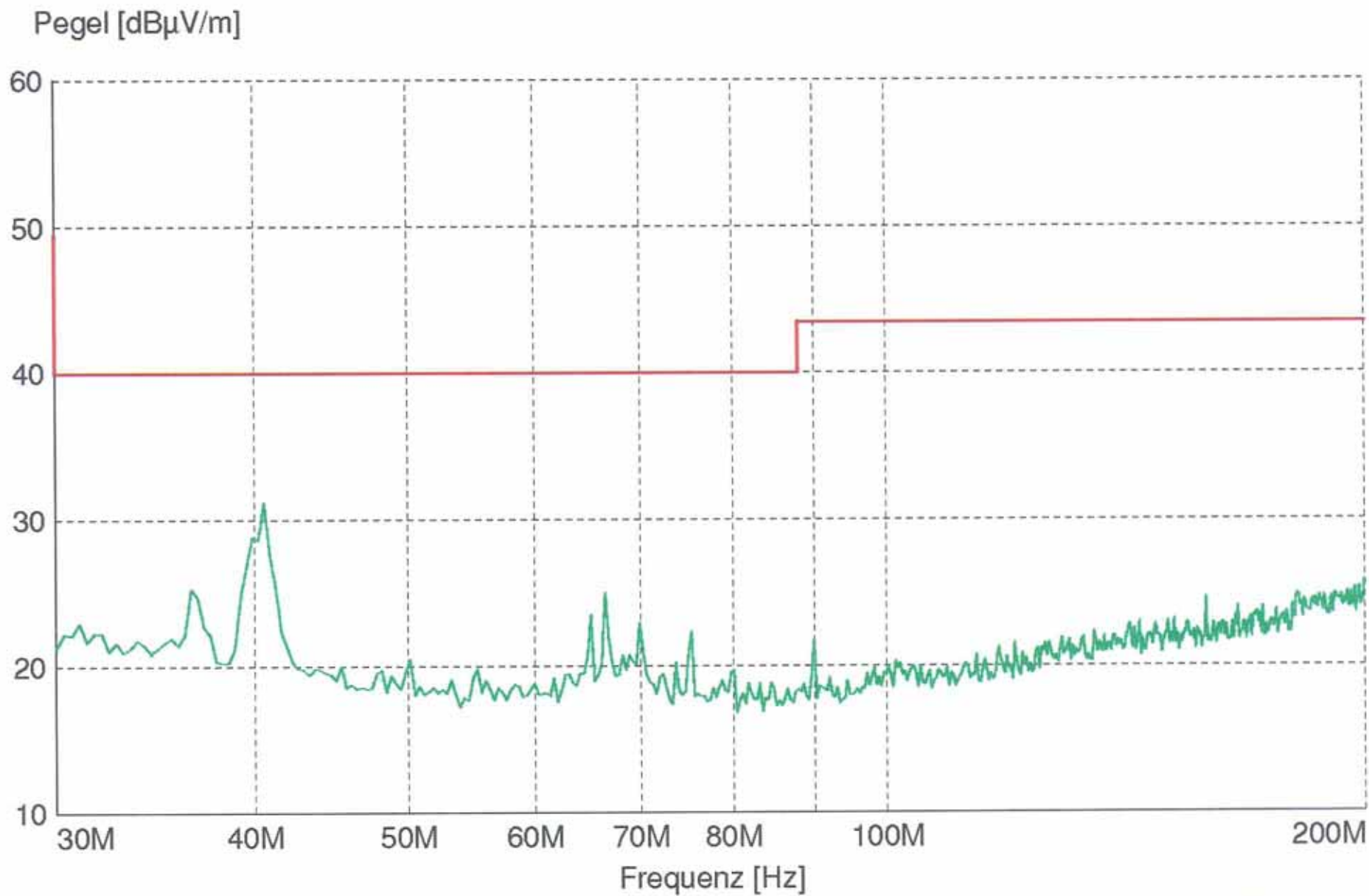
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Date: 26.02.2010

Checked by: 



— MES A753GSM_128_F1
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: *[Signature]*

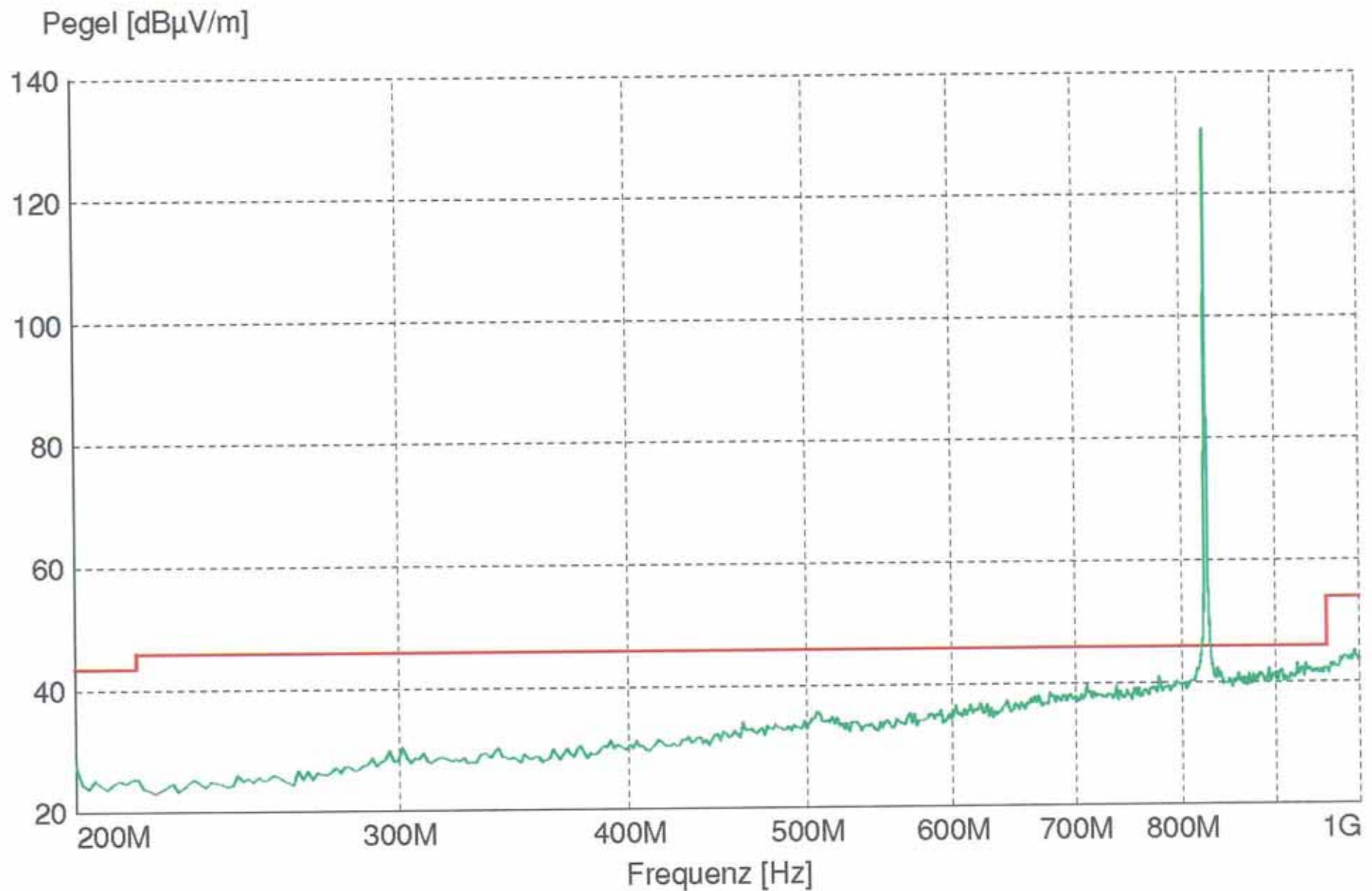
Date: 26.02.2010

Measurement diagram:
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— MES A753GSM_128_F2
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: M

Date: 26.02.2010

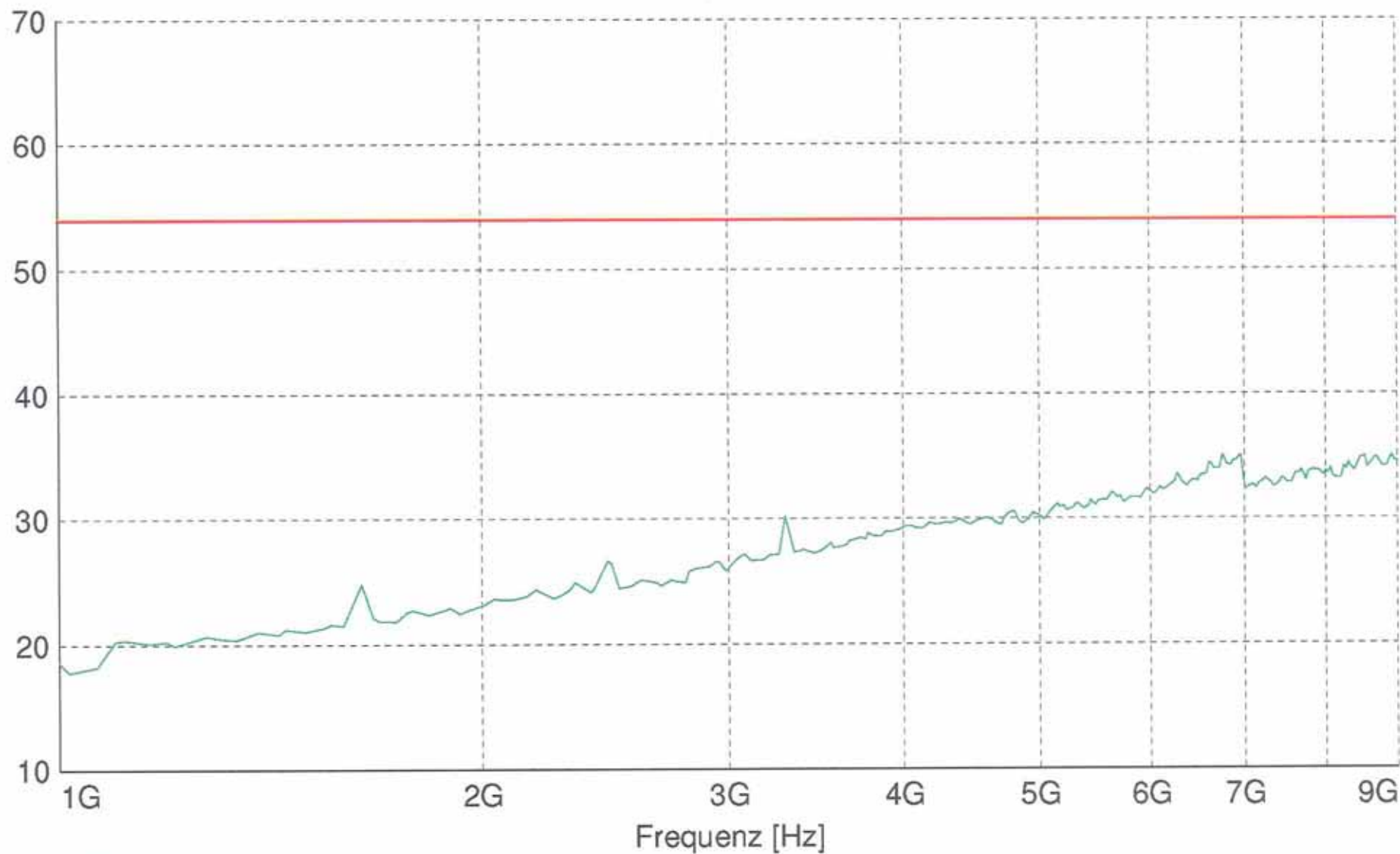
Measurement diagram:
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Pegel [dB μ V/m]



MES A753GSM_128_F3_AV
LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: *Ne*

Date: 26.02.2010

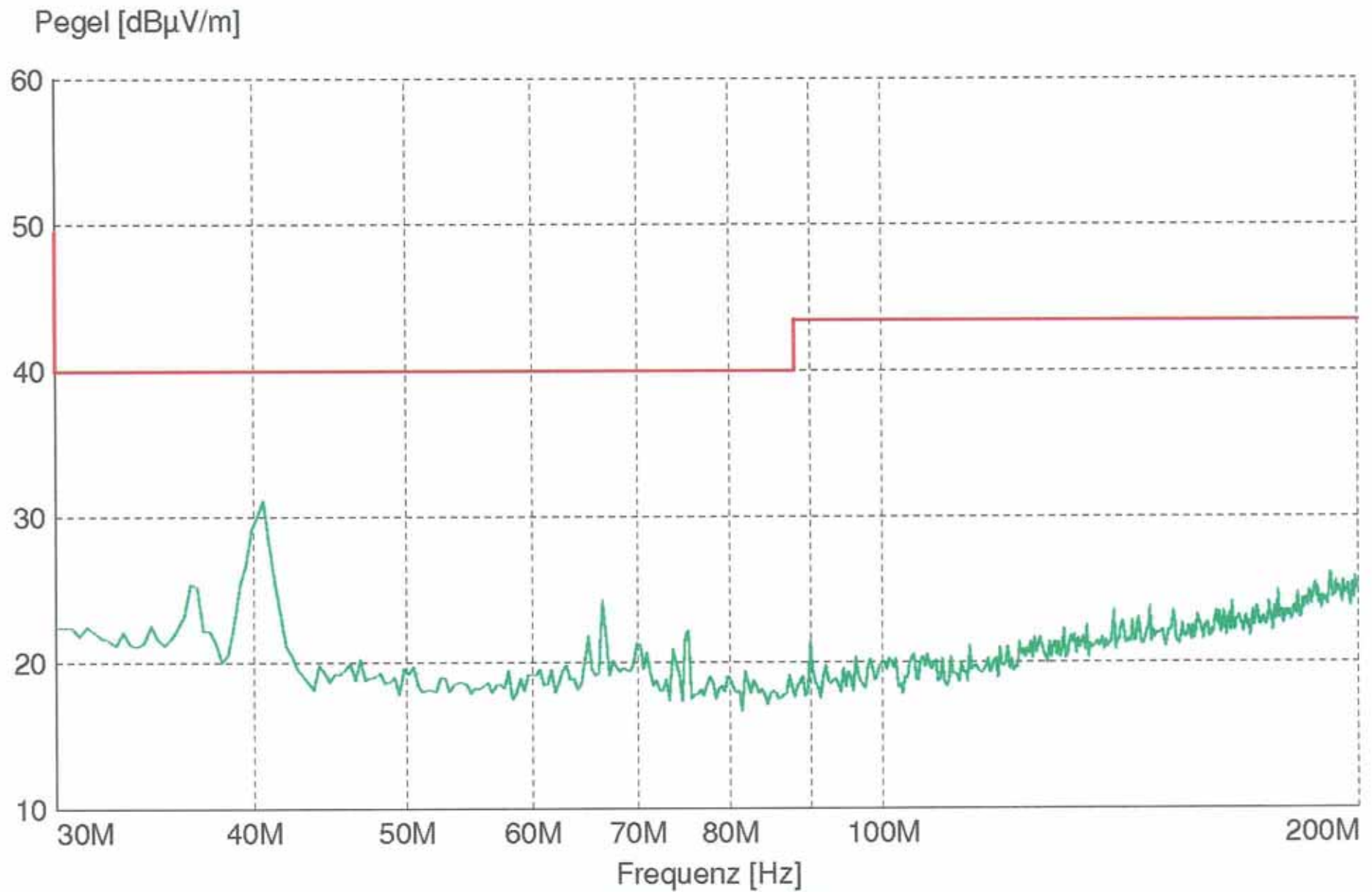
Measurement diagram:
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MES A753GSM_190_F1

LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: M

Date: 26.02.2010

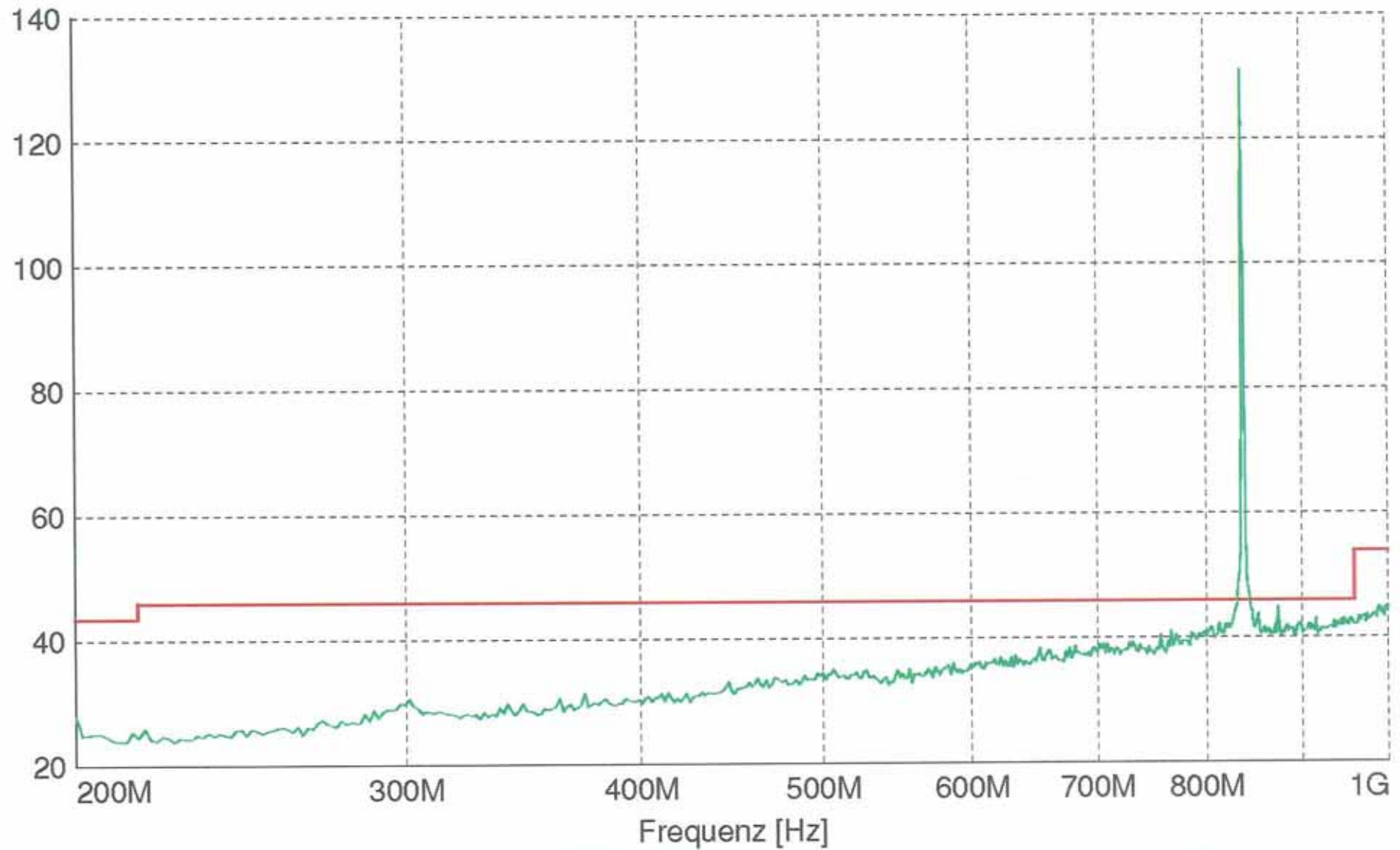
Measurement diagram:
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Communication Technology

Pegel [dB μ V/m]



— MES A753GSM_190_F2
— LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: *[Signature]*

Date: 26.02.2010

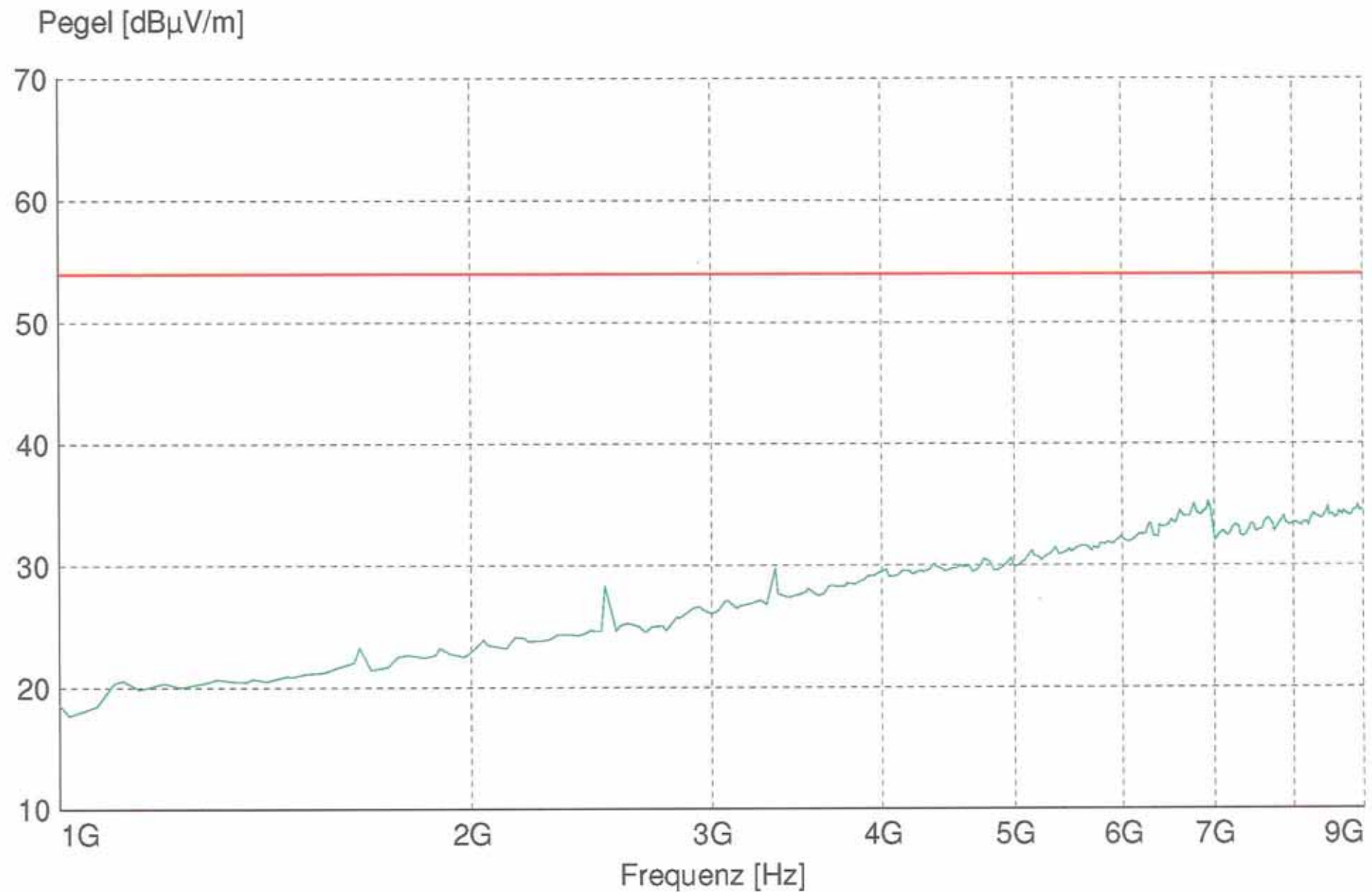
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— MES A753GSM_190_F3_AV
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: N

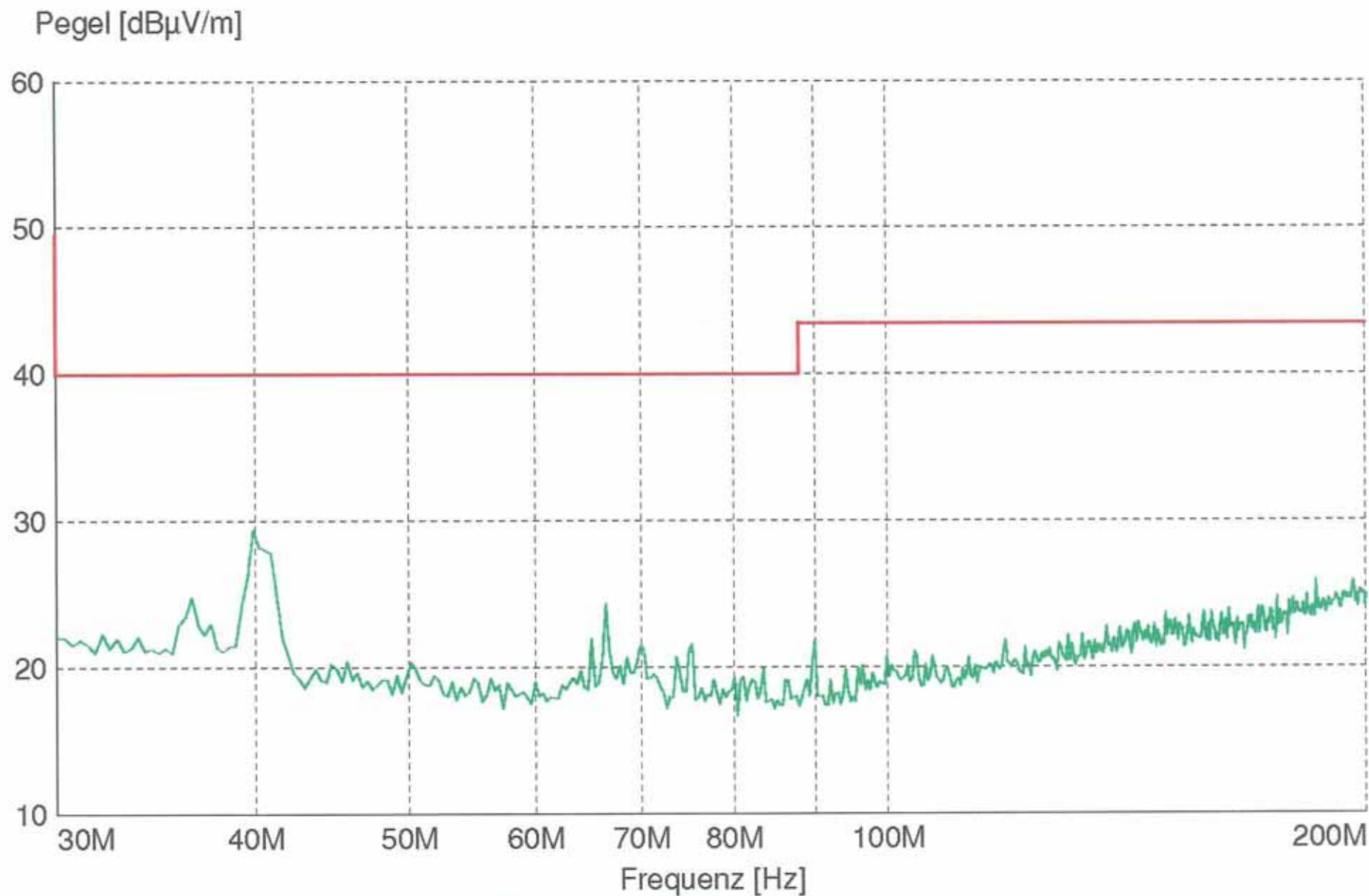
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— MES A753GSM_251_F1
— LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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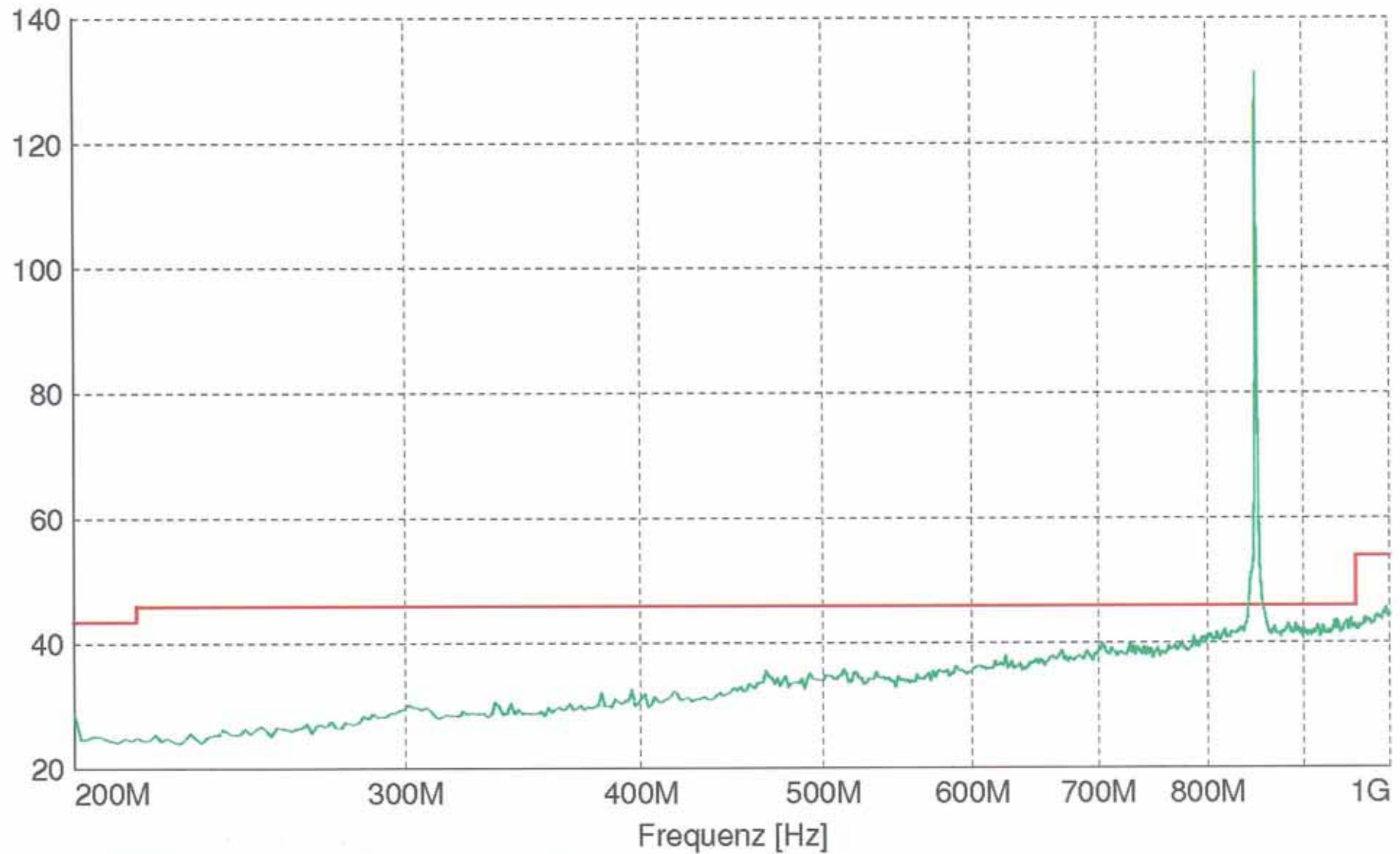
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Pegel [dBμV/m]



MES A753GSM_251_F2
LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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Date: 26.02.2010

Measurement diagram:
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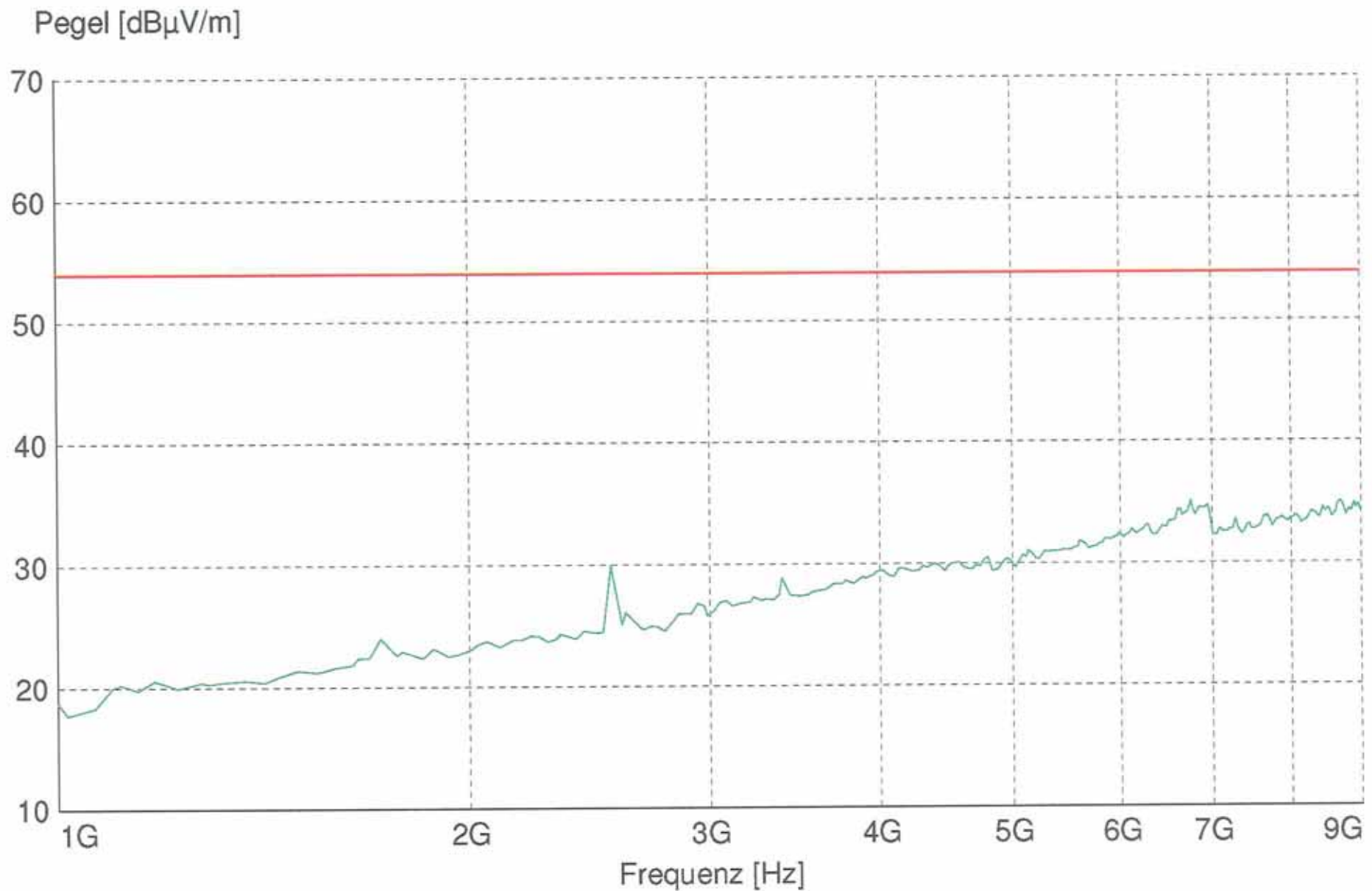
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MES A753GSM_251_F3_AV
 LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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Date: 26.02.2010

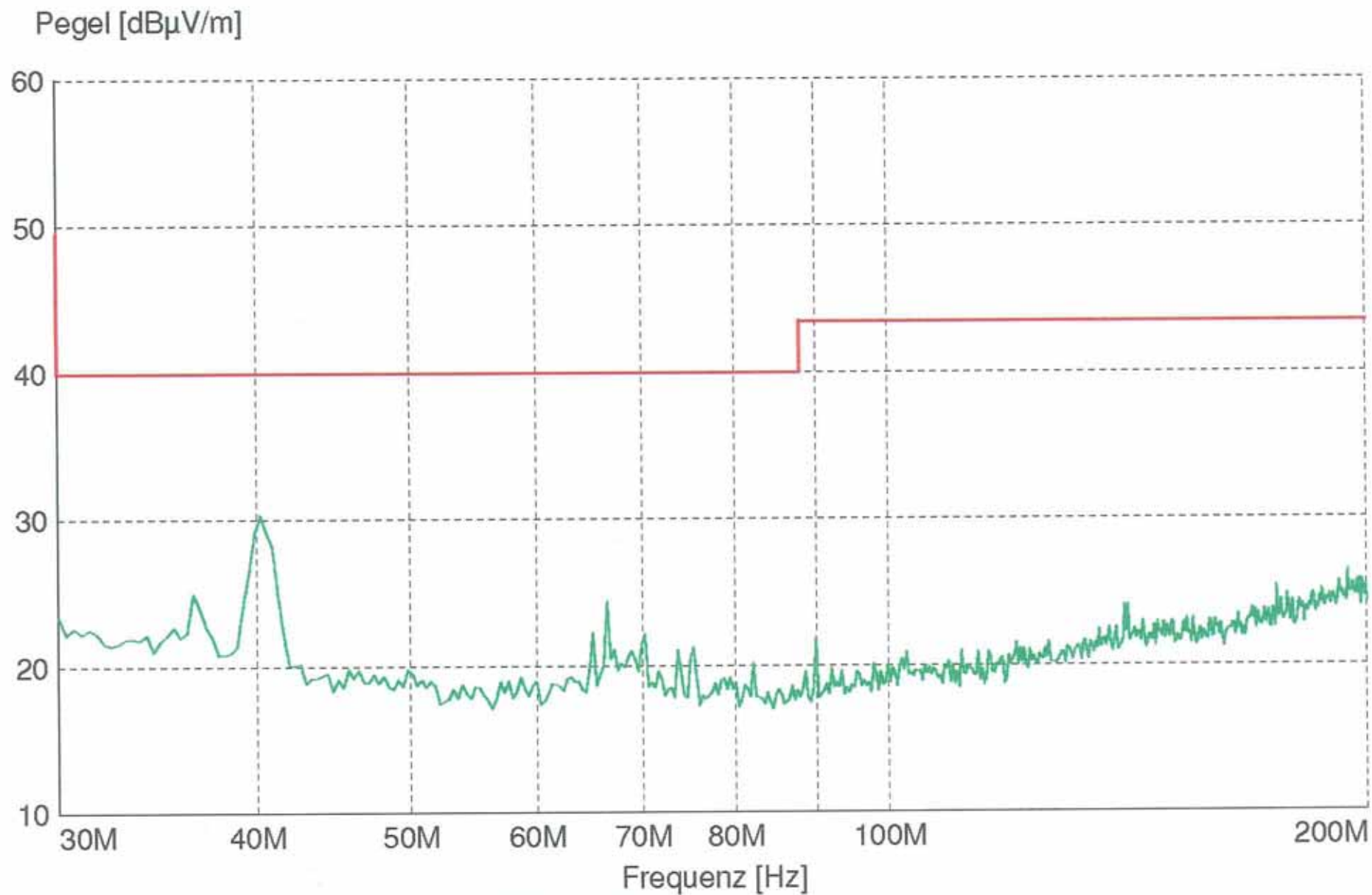
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— MES A753GSM_512_F1
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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Date: 26.02.2010

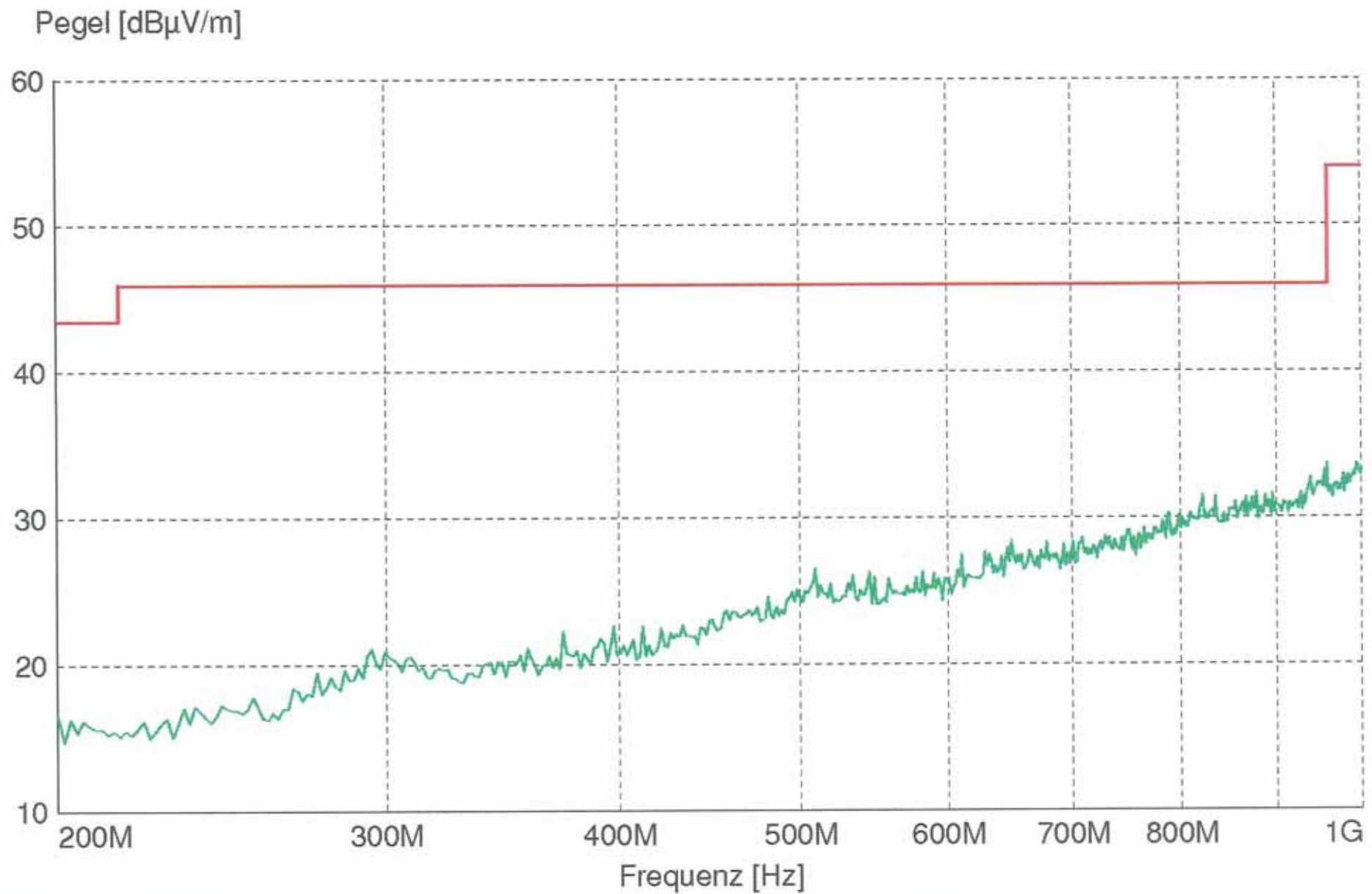
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MES A753GSM_512_F2
 LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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Date: 26.02.2010

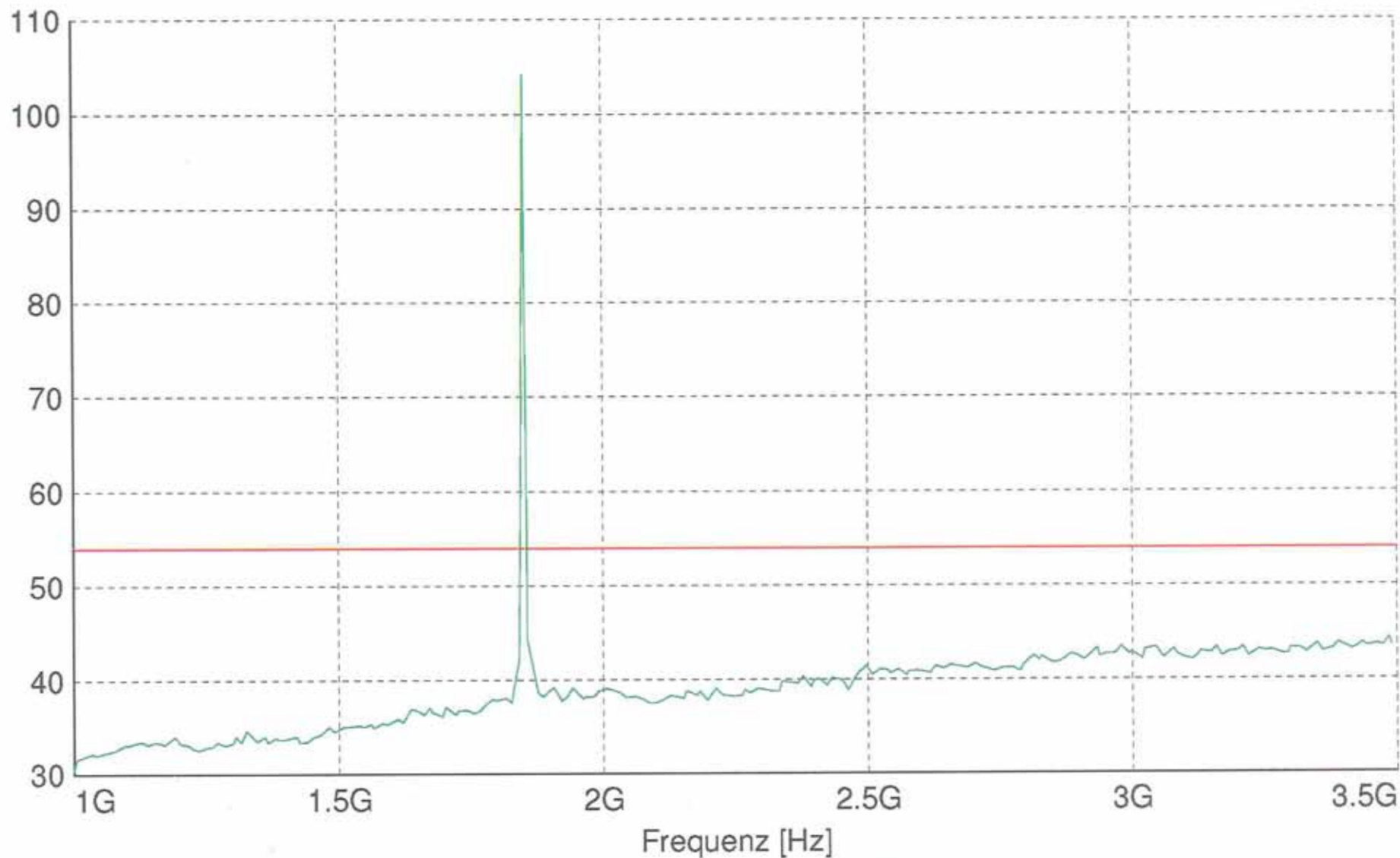
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Pegel [dB μ V/m]



MES A753GSM_512_F3_AV
LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: *[Signature]*

Date: 26.02.2010

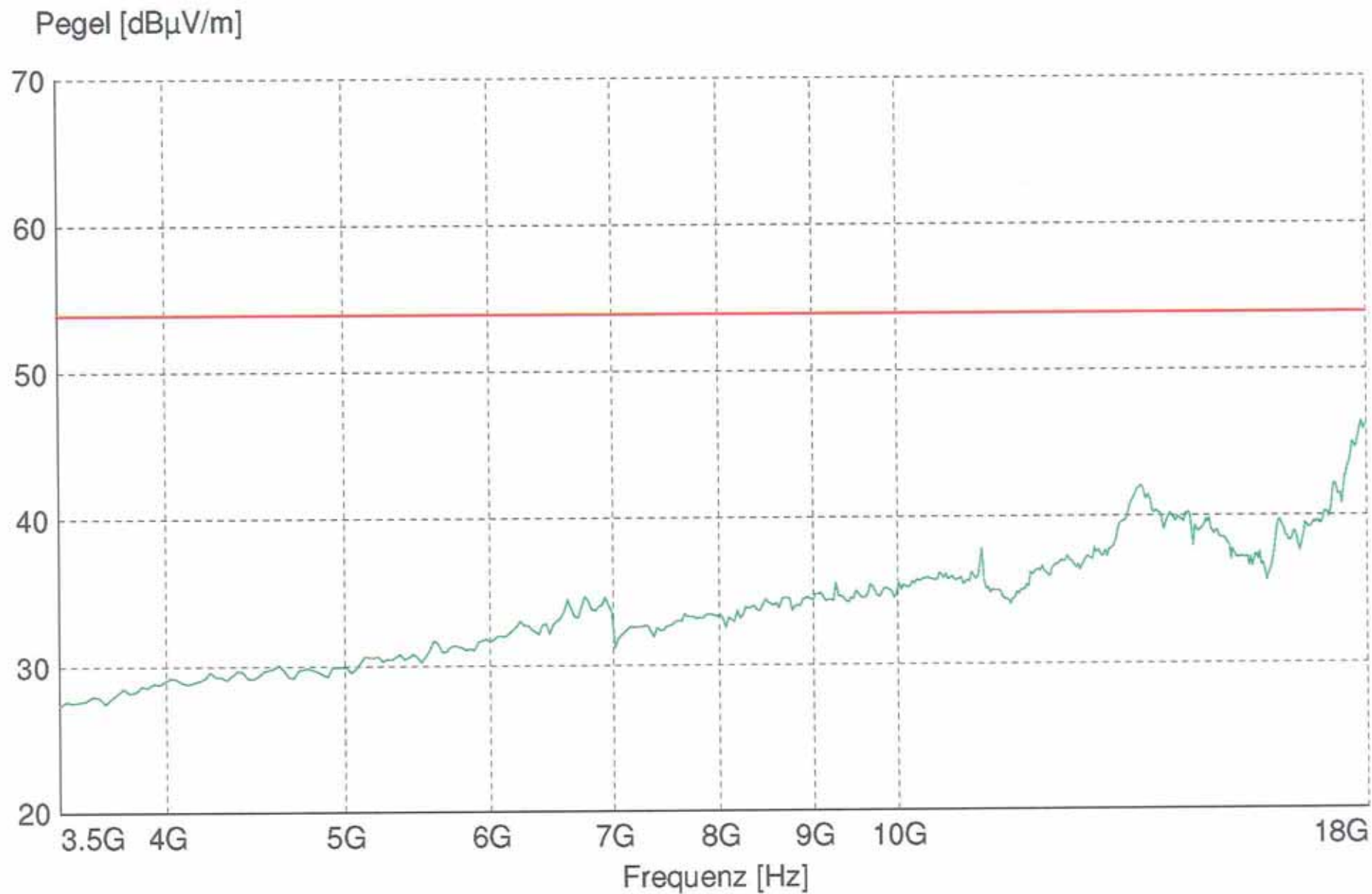
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— MES A753GSM_512_F4_AV
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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Date: 26.02.2010

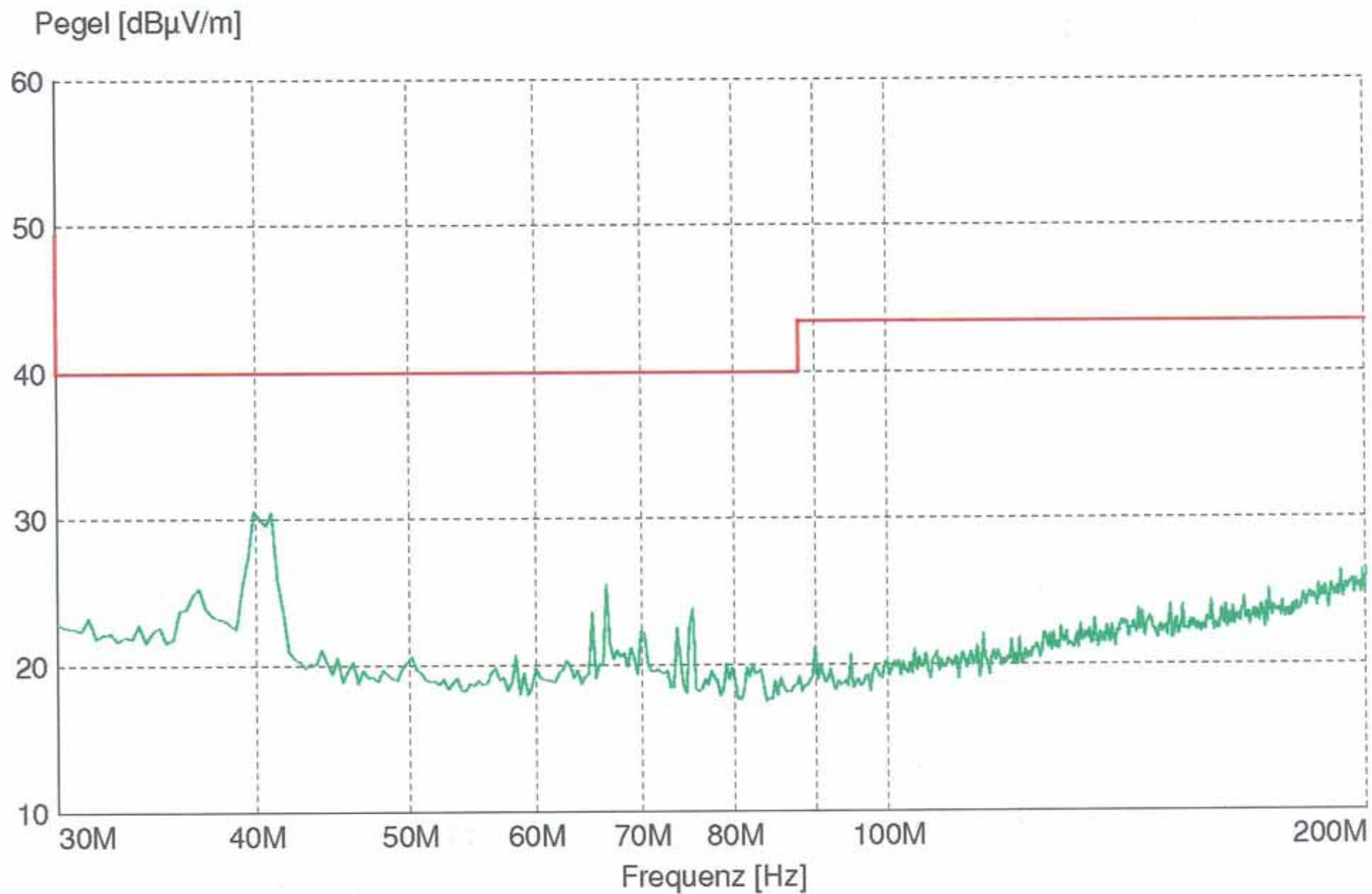
Measurement diagram:
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— MES A753GSM_661_F1

— LIM FCC ClassB F QP/AV FCC ClassB, field strength 3m

checked by: *Ma*

Date: 26.02.2010

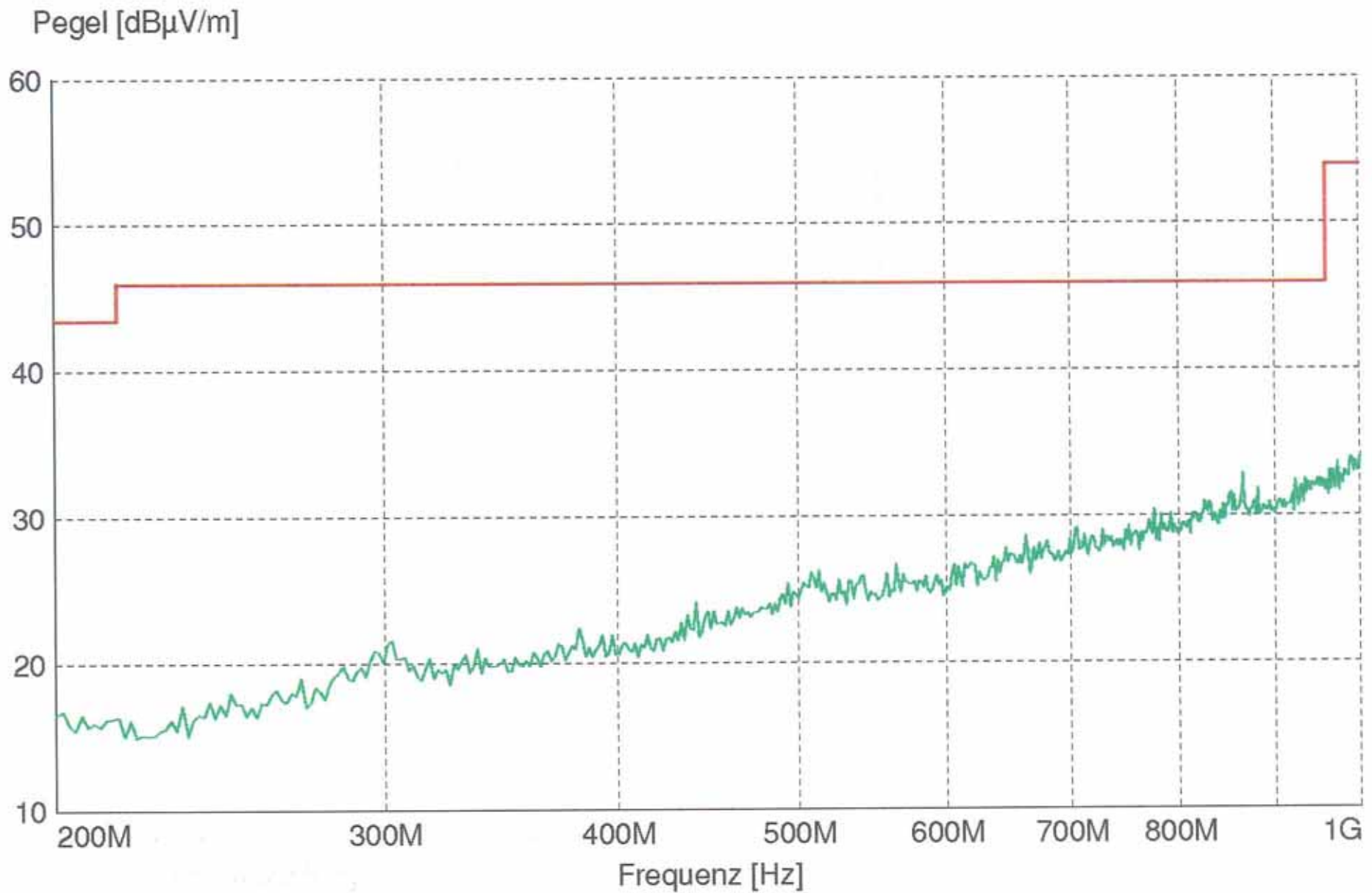
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— MES A753GSM_661_F2
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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Date: 26.02.2010

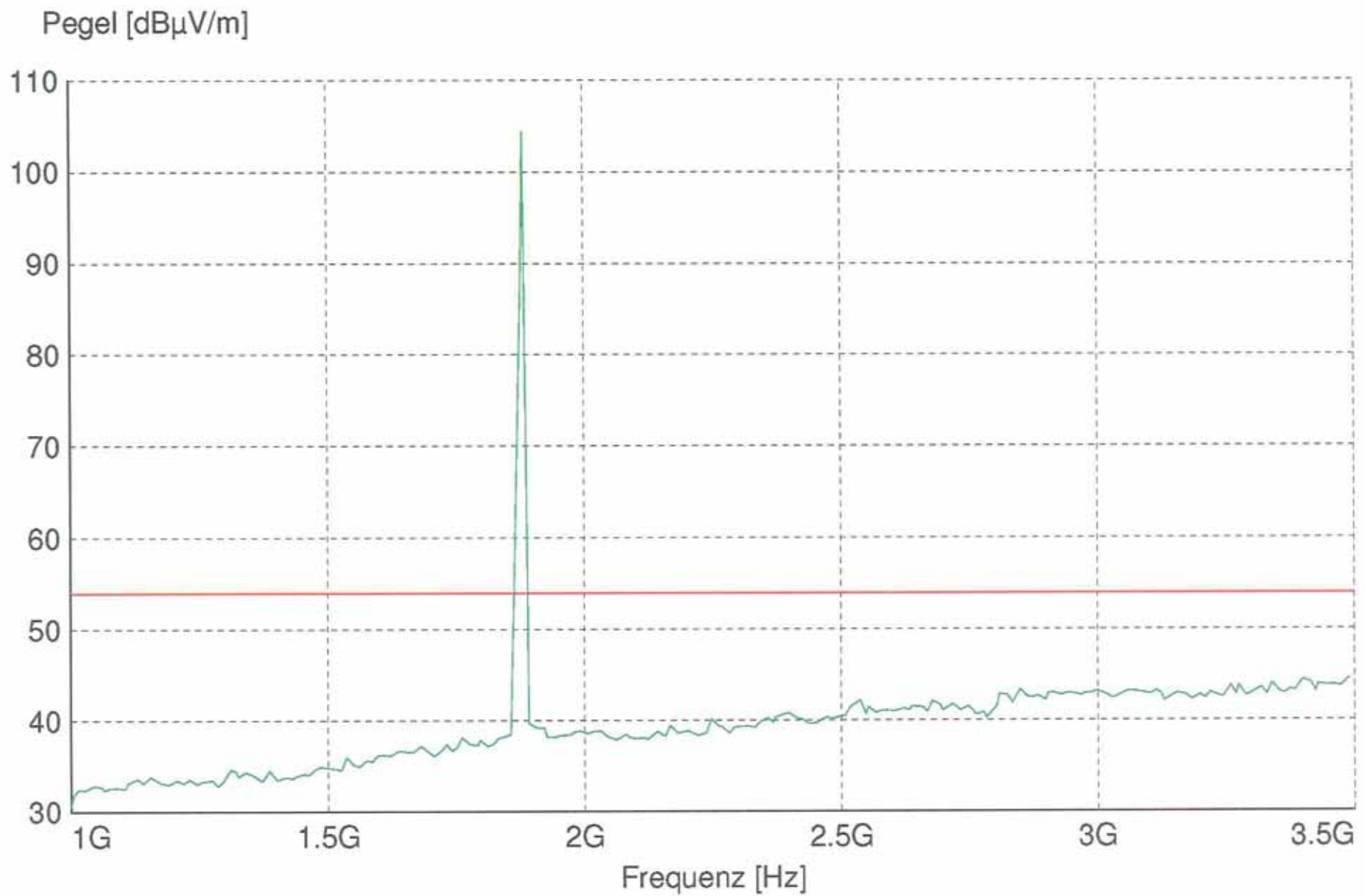
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— MES A753GSM_661_F3_AV
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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Date: 26.02.2010

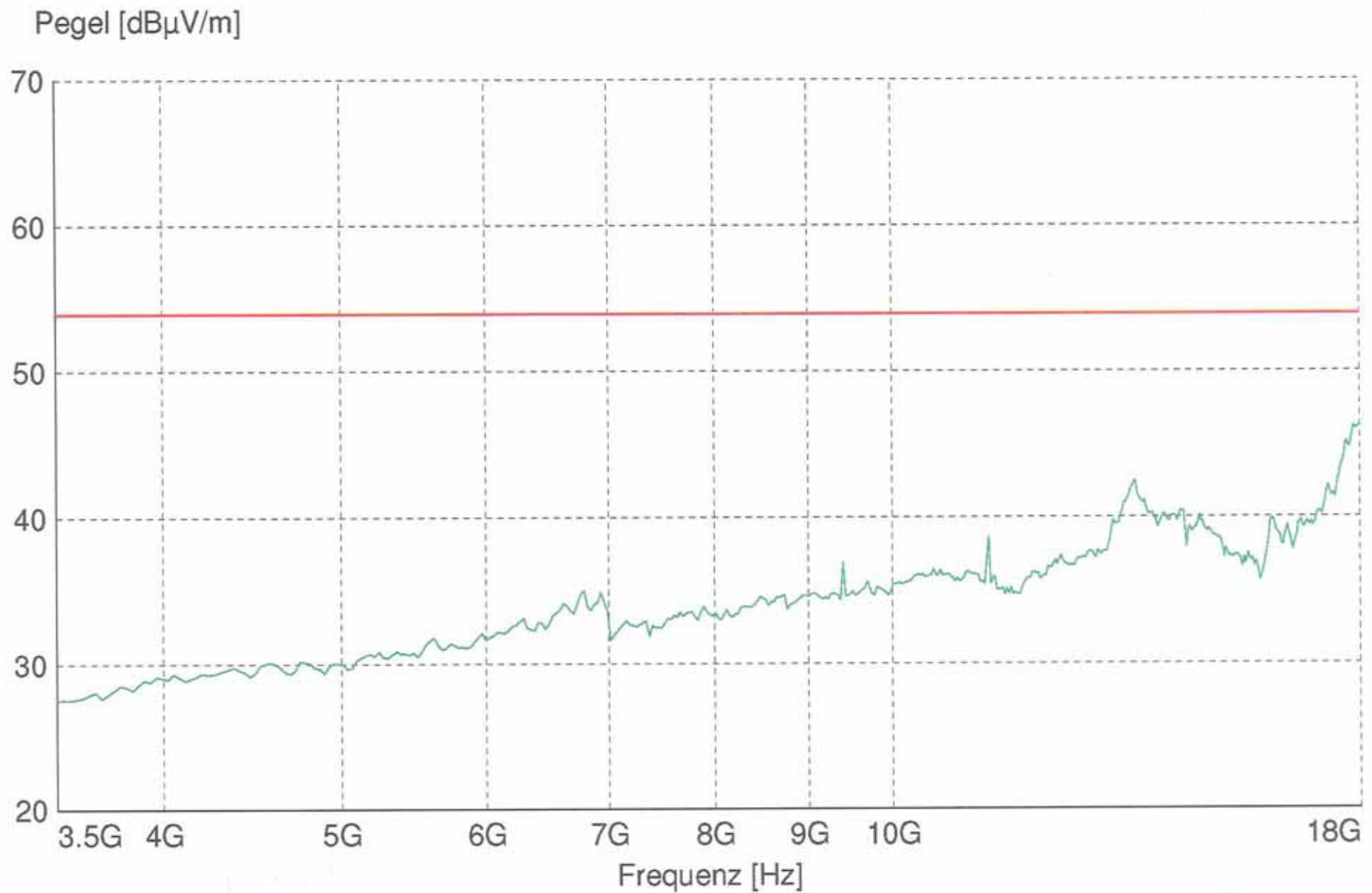
Measurement diagram:
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— MES A753GSM_661_F4_AV
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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Date: 26.02.2010

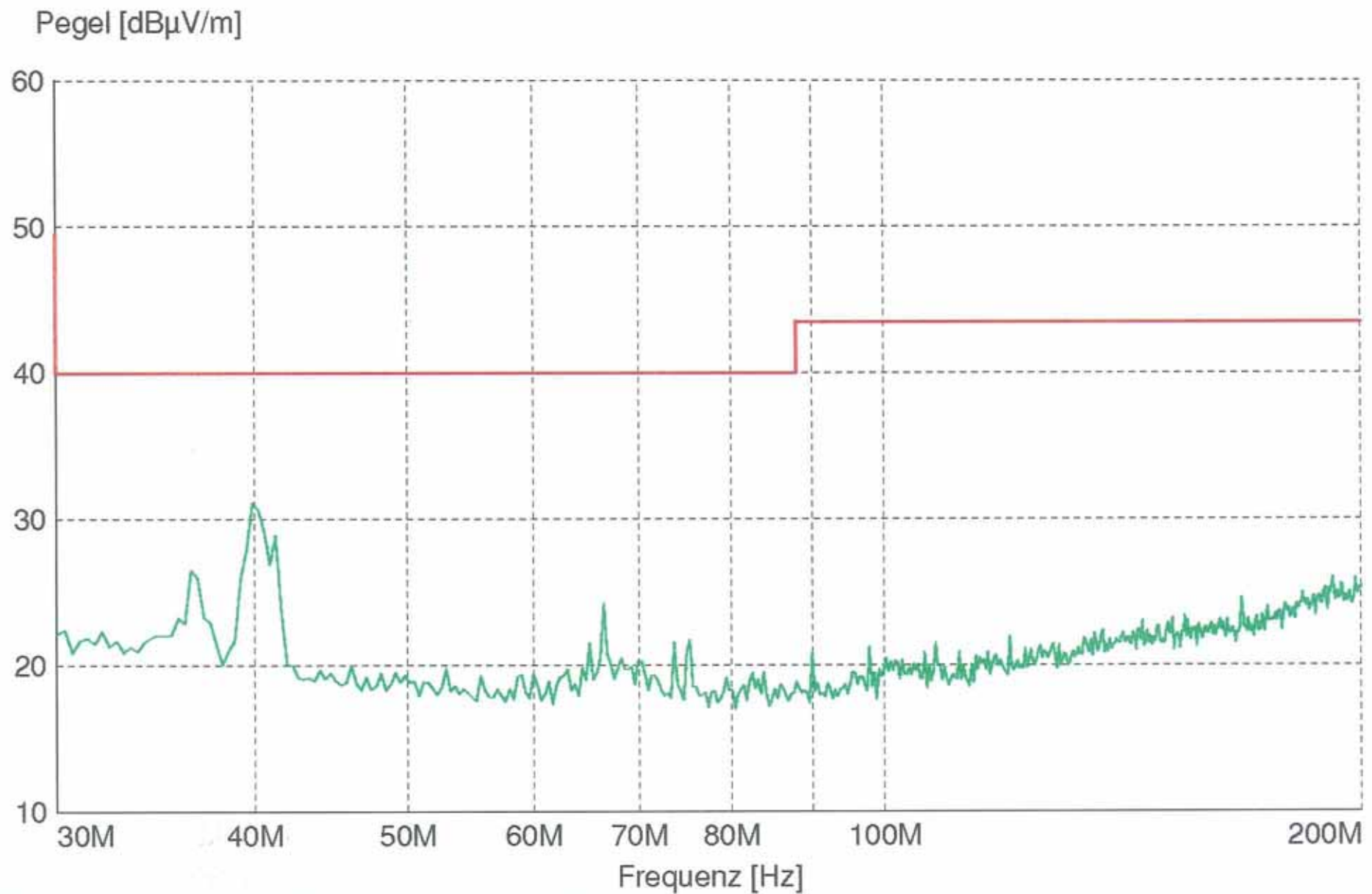
Measurement diagram:
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MES A753GSM_810_F1
LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: *[Signature]*

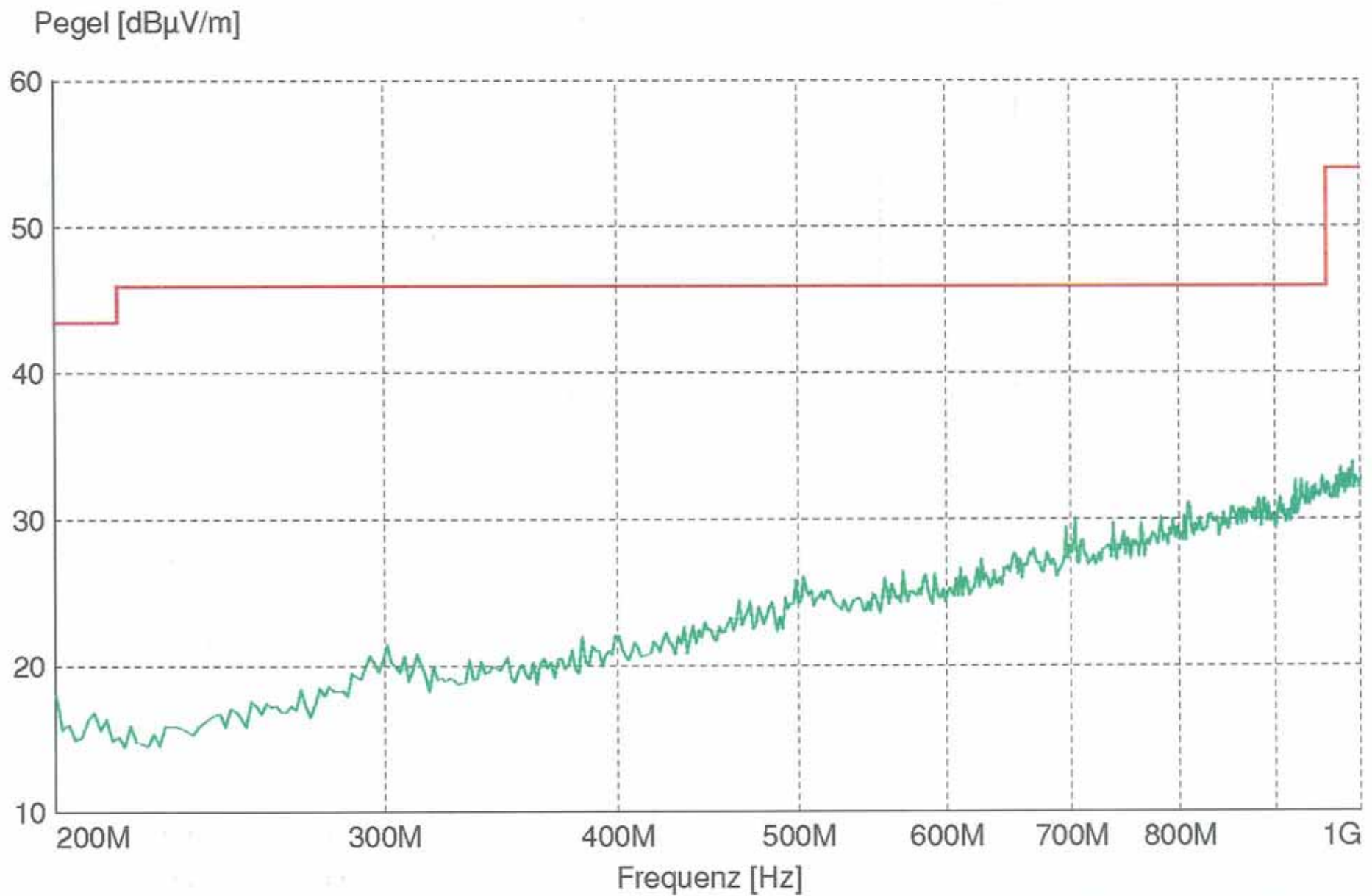
Date: 26.02.2010

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— MES A753GSM_810_F2

— LIM FCC ClassB F QP/AV FCC ClassB, field strength 3m

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Date: 26.02.2010

Measurement diagram:
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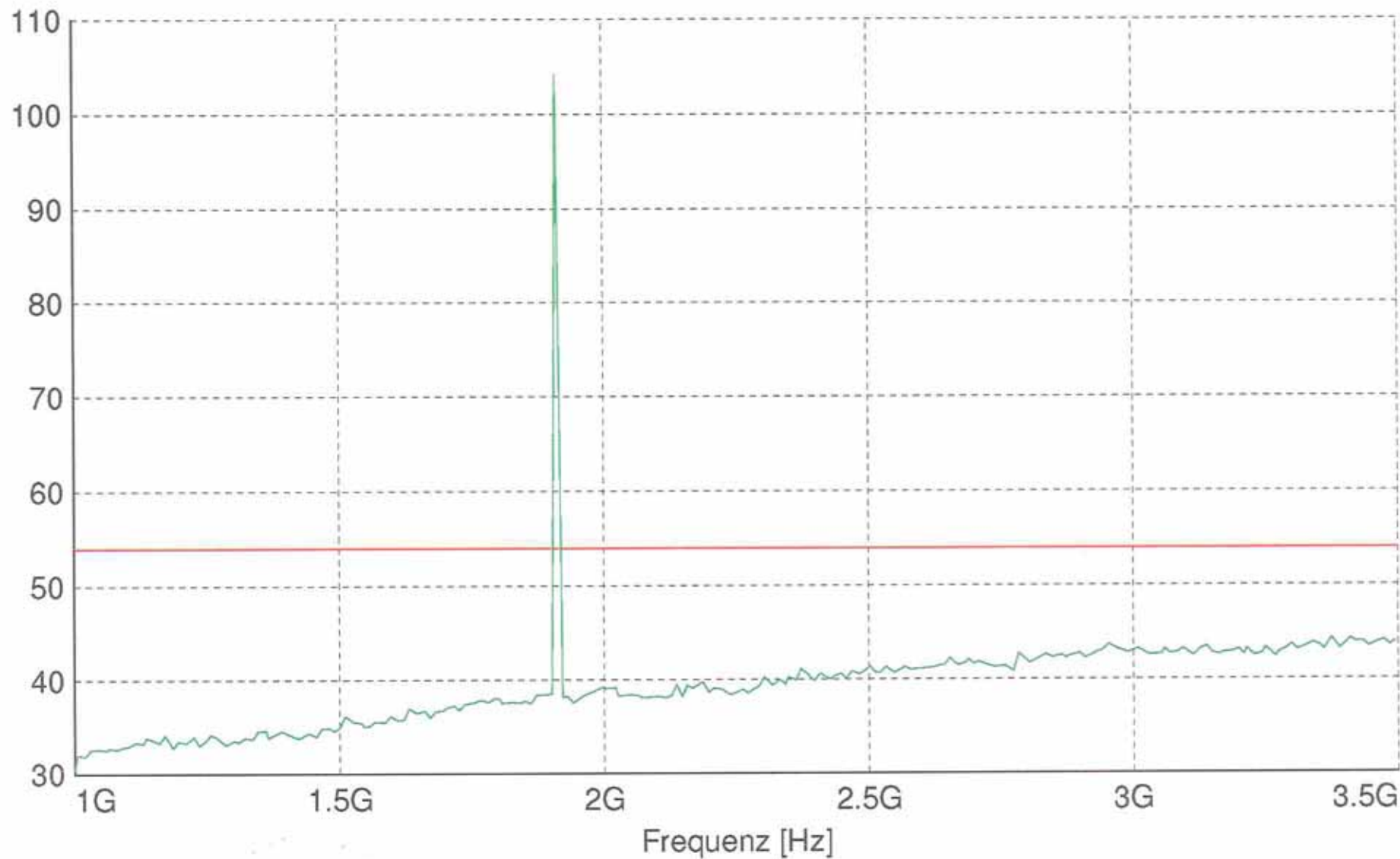
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Pegel [dB μ V/m]



MES A753GSM_810_F3_AV
LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

checked by: *M*

Date: 26.02.2010

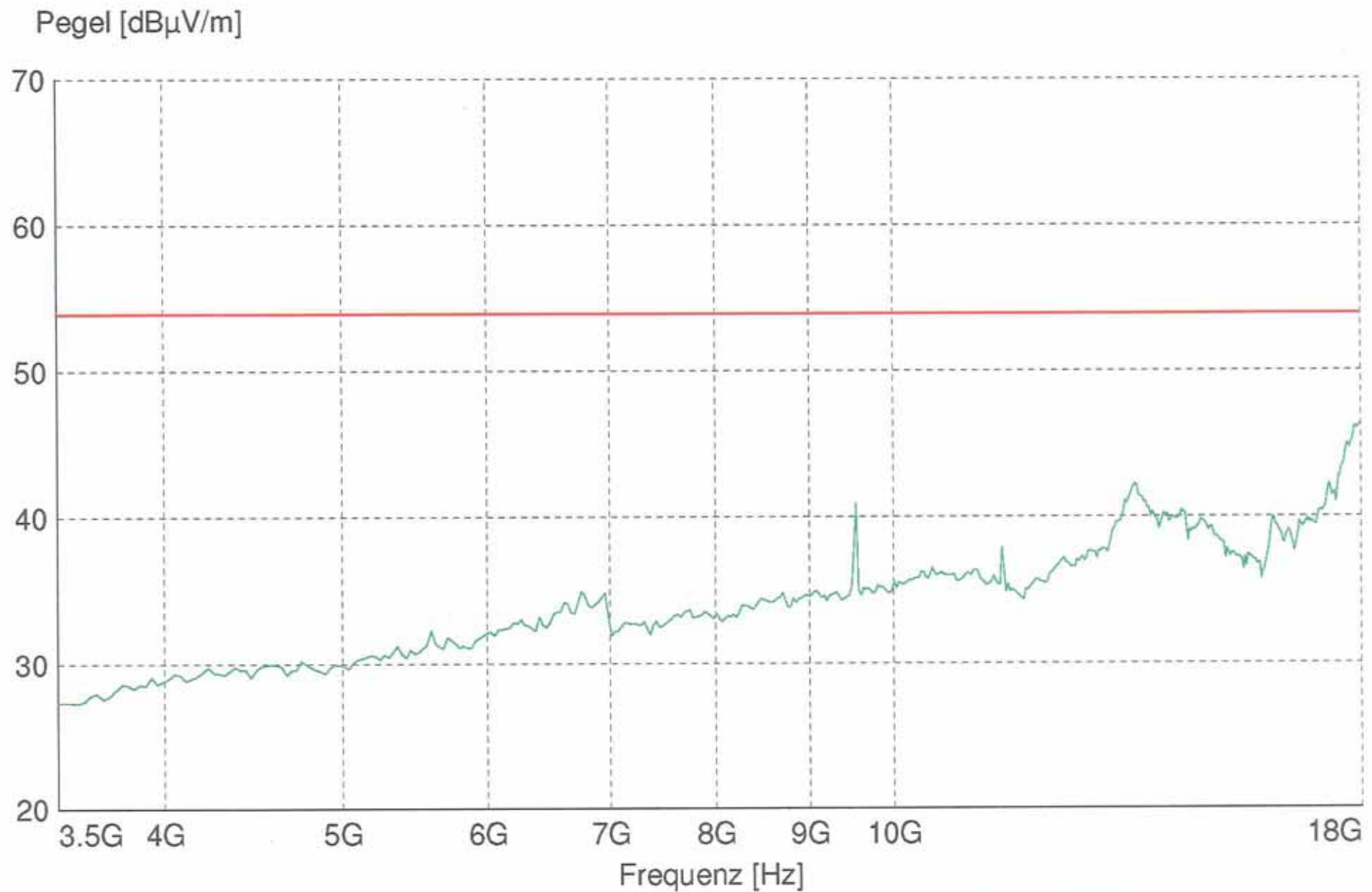
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— MES A753GSM_810_F4_AV
 — LIM FCC ClassB F QP/AV

FCC ClassB, field strength 3m

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