

TEST REPORT

of the accredited test laboratory

TÜV Nr.:INE-AT/FG-19/110

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SERVICES GMBH

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Business Area
Industry & Energy Austria
Technik

Applicant: AKG Acoustics GmbH
Salzgasse 2
5400 Hallein, Austria

Tested Product: wireless microphone handheld transmitter

Type: HT420 RF Band A

Manufacturer: VTech Communications Ltd.
Xia Ling Bei Management Zone, Liaobu, Dongguan,
Guangdong Province
523411 China



Output power: 8 mW

power supply:

1,5V DC

internal battery

Testing Laboratory,
Inspection Body,
Certification Body,
Calibration Laboratory,
Verifizierungsstelle

Frequency range: 530 – 560 MHz

Channel separation: 200kHz

Notified Body 0408
IC 2932K-1

Standard: EN 300 422-1 V2.1.2

Non-executive
Board of Directors:
KR DI Johann
Marihart

TÜV AUSTRIA SERVICES GMBH

Test laboratory for EMC

Supervisor of EMC-laboratory:

Ing. Wilhelm Seier



Copy Nbr.: 01

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DVR 3002476

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

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1. Applicant

Company: AKG Acoustics GmbH

Department: R&D

Address: Salzgasse 2
5400 Hallein, Austria

Contact person: Mr. Gabor Mikovics

EUT received on: 16.10.2018

Tests were performed on: 16.01. till 29.01.2019

2. Description of EUT

EUT: Wireless microphone handheld transmitter 'HT420 RF Band A'

Serial Number: Prototype

Manufacturer: AKG Acoustics GmbH
Salzgasse 2
5400 Hallein, Austria

Description: AKG Acoustics GmbH provided the following configuration for the measurements:

Prototype

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

Transmitting

Technical data EUT: Rated voltage: 1,5VDC
Rated current: 500mA
Rated frequency: DC

Mains voltage during the tests: 1,5VDC via internal battery

Climatic conditions in the emc laboratory: Relative humidity: 19%
Temperature: 25°C

3. Standards / Final result

Name	Title	Deviation	Result
EN 300422-1 V2.1.2	Wireless Microphones; Audio PMSE up to 3 GHz; Part 1: Class A Receivers; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	none	OK
Result: Opinions and interpretation of testing laboratory OK: EUT passed NOK: EUT failed			

4. TEST RESULT

4.1. Frequency stability

SUBCLAUSE 8.1

ETSI requirements

Rated output power: 8 mW

Operating condition		Frequency Error kHz			Frequency Error ppm		
		530 MHz	545 MHz	560 MHz	530 MHz	545 MHz	560 MHz
T _{nom} (25)°C	V _{nom} (1,5)V	1,381	1,413	1,442	2,61	2,59	2,58
T _{min} (-20)°C	V _{min} (1)V	-0,432	-0,450	-0,467	-0,81	-0,83	-0,83
	V _{nom} (1,5)V	-0,543	-0,575	-0,579	-1,02	-1,06	-1,03
T _{max} (55)°C	V _{min} (1)V	-0,071	-0,050	-0,064	-0,13	-0,09	-0,11
	V _{nom} (1,5)V	-0,082	-0,075	-0,081	-0,15	-0,14	-0,14
Measurement uncertainty					± 0,1 ppm		

LIMIT

SUBCLAUSE 8.1.3

The frequency error shall not exceed 20 parts per million for frequencies below 1 GHz, 15 parts per million between 1 GHz and 2 GHz and 10 ppm above 2 GHz.

Test Equipment used: NT-100; NT-110/1; NT-111/1; NT-112/1; NT-131/1; NT-207; EMV-205; M-1200

Frequency stability

SUBCLAUSE 74.861 / G3.3

FCC/ISED requirements

Rated output power: 8 mW

Operating condition	Frequency Error kHz			Frequency Error ppm		
	530 MHz	545 MHz	560 MHz	530 MHz	545 MHz	560 MHz
Operating voltage at 20°C ambient temperature						
1,5 V	1,354	1,388	1,425	2,56	2,55	2,55
1 V	1,344	1,375	1,409	2,54	2,52	2,52
Measurement uncertainty				± 0,1 ppm		

Operating condition	Frequency Error kHz			Frequency Error ppm		
	530 MHz	545 MHz	560 MHz	530 MHz	545 MHz	560 MHz
ambient temperature at 1,5V operating voltage						
-30°C	-4,698	-4,863	-5,026	-8,86	-8,92	-8,97
-20°C	-0,596	-0,575	-0,619	-1,12	-1,06	-1,10
-10°C	1,073	1,088	1,106	2,03	2,00	1,98
0°C	1,815	1,875	1,935	3,43	3,44	3,46
10°C	1,778	1,800	1,890	3,36	3,30	3,38
20°C	1,354	1,388	1,414	2,56	2,55	2,53
30°C	1,423	1,450	1,487	2,69	2,66	2,66
40°C	0,406	0,463	0,440	0,77	0,85	0,79
50°C	-0,055	-0,050	-0,075	-0,10	-0,09	-0,13
Measurement uncertainty				± 0,1 ppm		

LIMIT

SUBCLAUSE 74.861(e)(4) / Table G.1

The frequency tolerance of the transmitter shall be 0,005 percent (50ppm).

Test Equipment used: NT-100; NT-110/1; NT-111/1; NT-112/1; NT-131/1; NT-207; EMV-205; M-1200

4.2 Rated output power

SUBCLAUSE 8.2

Radiated Measurement

Rated output power: 8 mW

Test conditions		Transmitter power (mW) (erp)		
		530 MHz	545 MHz	560 MHz
T_{nom} (25) °C	V_{nom} (1,5)V	6,03	5,89	4,47
Maximum deviation from rated output power under normal test conditions (%)		-24,7	-26,4	-44,2
Measurement uncertainty		\pm 0,75 dB		

LIMIT

SUBCLAUSE 8.2.3

The measured value shall be within +20 % and -50 % of the manufacturers declared rated output power.

Test Equipment used: NT-100; NT-110/1; NT-111/1; NT-112/1; NT-131/1; NT-207

4.3 NECESSARY BANDWIDTH

SUBCLAUSE 8.3

LIMIT

SUBCLAUSE 8.3.2.2

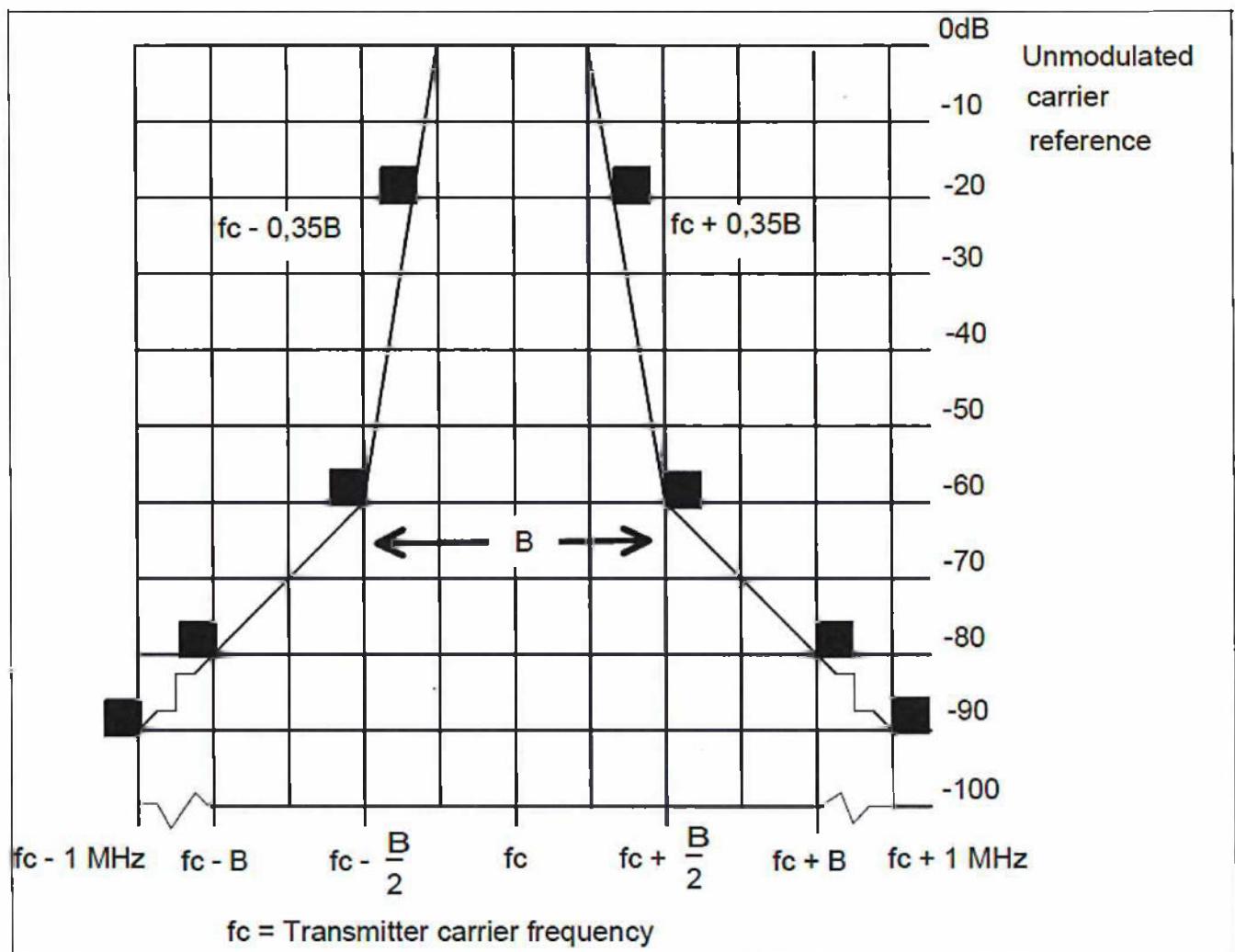


Figure 3 shows the spectrum mask for all analogue systems in the band. The -90 dBc point shall be $\pm 1 \text{ MHz}$ from fc measured with an average detector. To comply, a measured value shall fall below the mask limit as shown in figure 3.

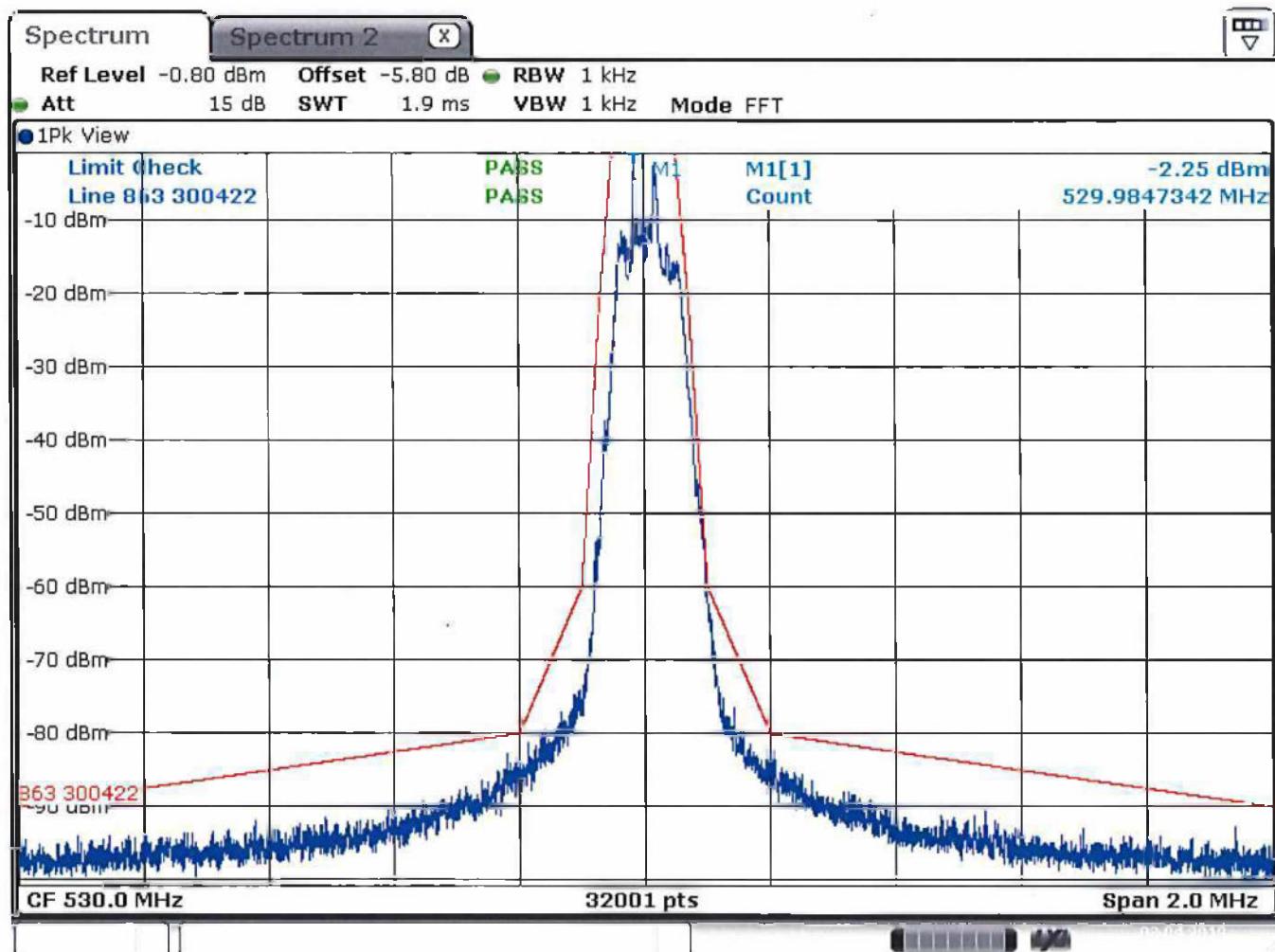
NECESSARY BANDWIDTH

SUBCLAUSE 8.3

The operating Bandwidth was measured at an acoustic input level 12 dB higher than the limiting threshold, determined with 500 Hz signal.

Rated output power: 8 mW

Measurement with weighted noise source signal @ 530 MHz centered.



Date: 3.APR.2019 15:48:22

TEST EQUIPMENT USED: EMV-205

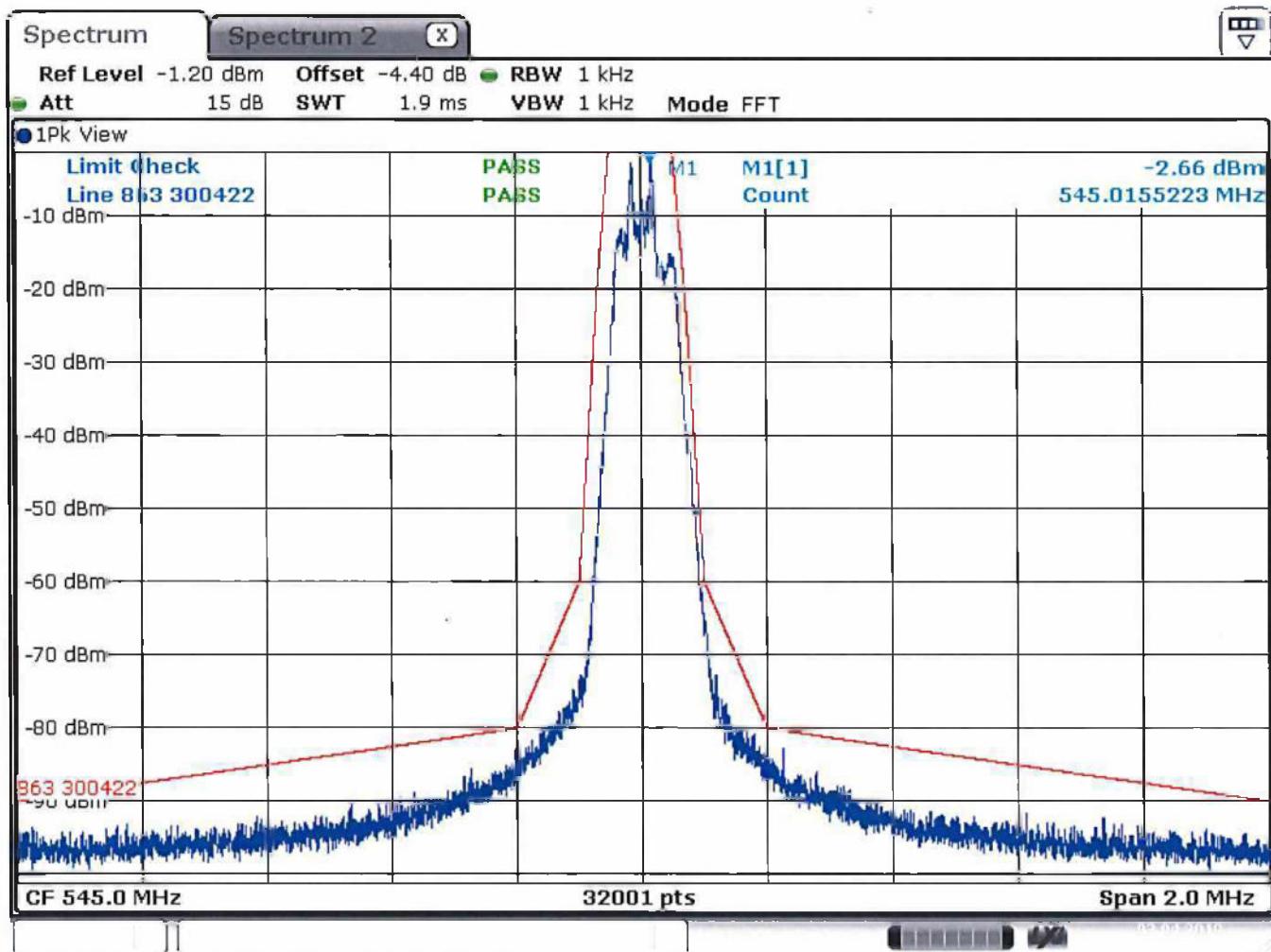
NECESSARY BANDWIDTH

SUBCLAUSE 8.3

The operating Bandwidth was measured at an acoustic input level 12 dB higher than the limiting threshold, determined with 500 Hz signal.

Rated output power: 8 mW

Measurement with weighted noise source signal @ 545 MHz centered.



Date: 3.APR.2019 15:51:43

TEST EQUIPMENT USED: EMV-205

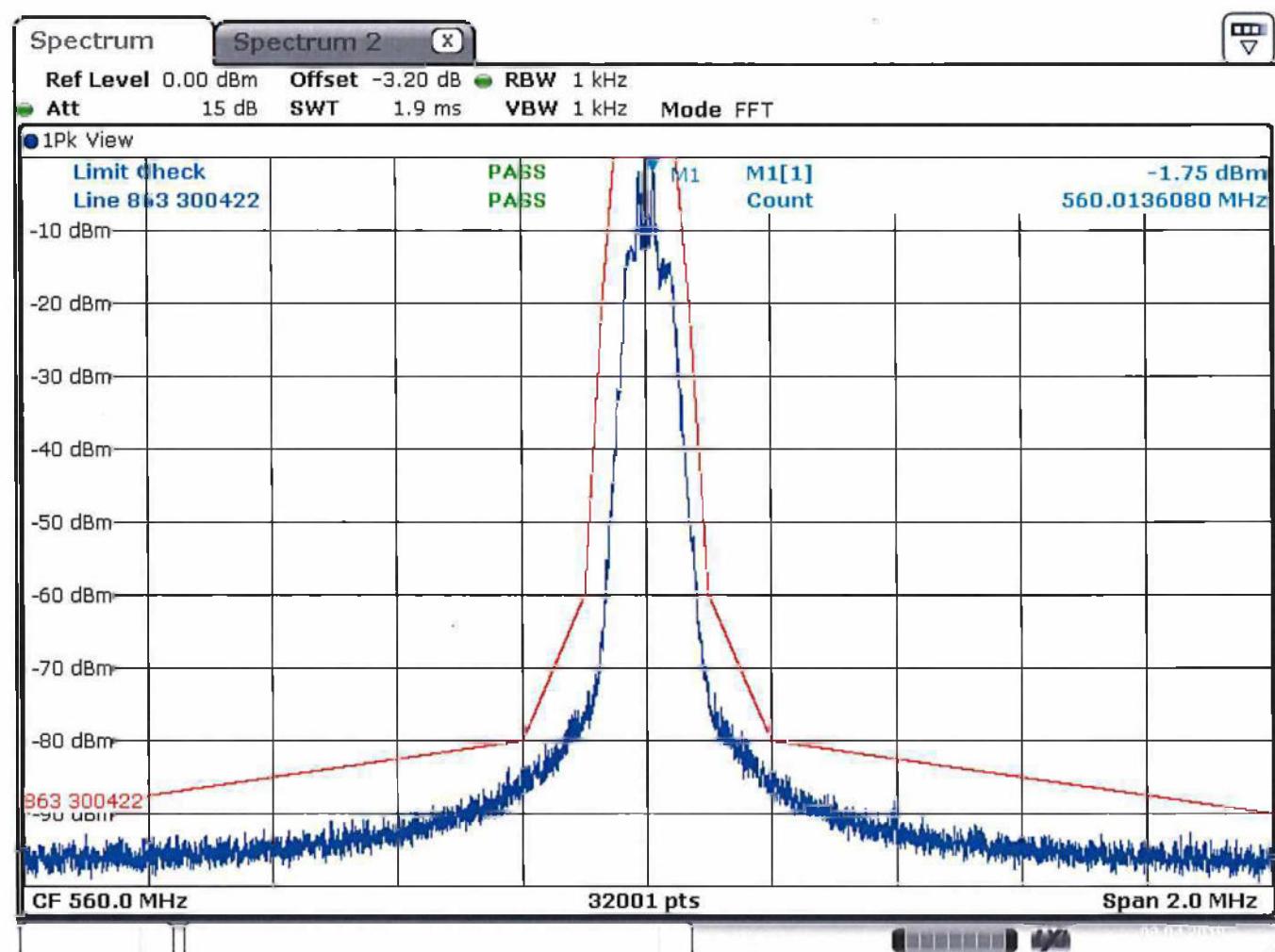
NECESSARY BANDWIDTH

SUBCLAUSE 8.3

The operating Bandwidth was measured at an acoustic input level 12 dB higher than the limiting threshold, determined with 500 Hz signal.

Rated output power: 8 mW

Measurement with weighted noise source signal @ 560 MHz centered.



TEST EQUIPMENT USED: EMV-205

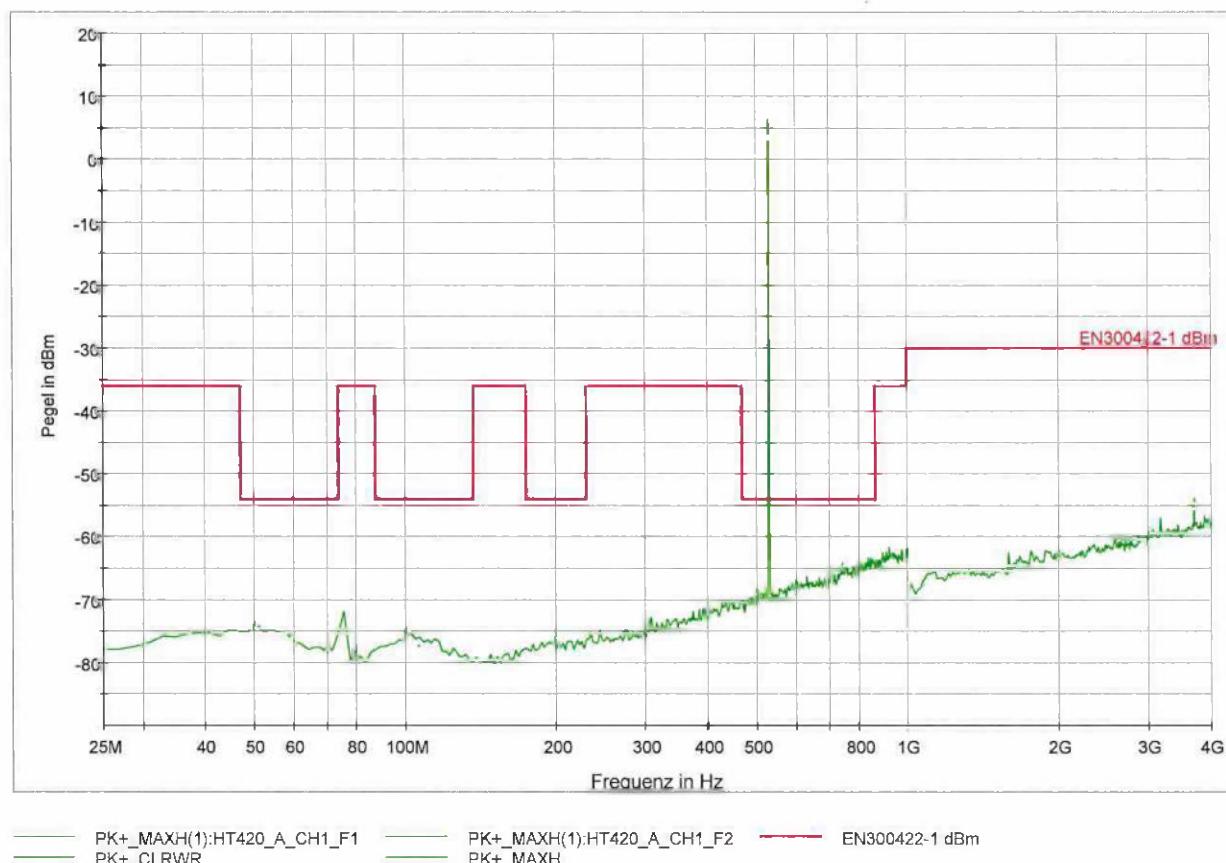
4.4 TRANSMITTER SPURIOUS EMISSIONS radiated

SUBCLAUSE 8.4

Operating mode: transmitter operating at 530 MHz

Rated output power: 8 mW

Modulation: unmodulated carrier



LIMIT

SUBCLAUSE 8.4.3

47 MHz to 74 MHz 87,5 MHz to 137 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies \leq 1000 MHz	Frequencies $>$ 1000 MHz
4,0 nW (-54 dBm)	250 nW (-36 dBm)	1,00 μ W (-30 dBm)

Test Equipment used: NT-100; NT-110/1; NT-111/1; NT-112/1; NT-131/1; NT-139; NT-337; NT-207

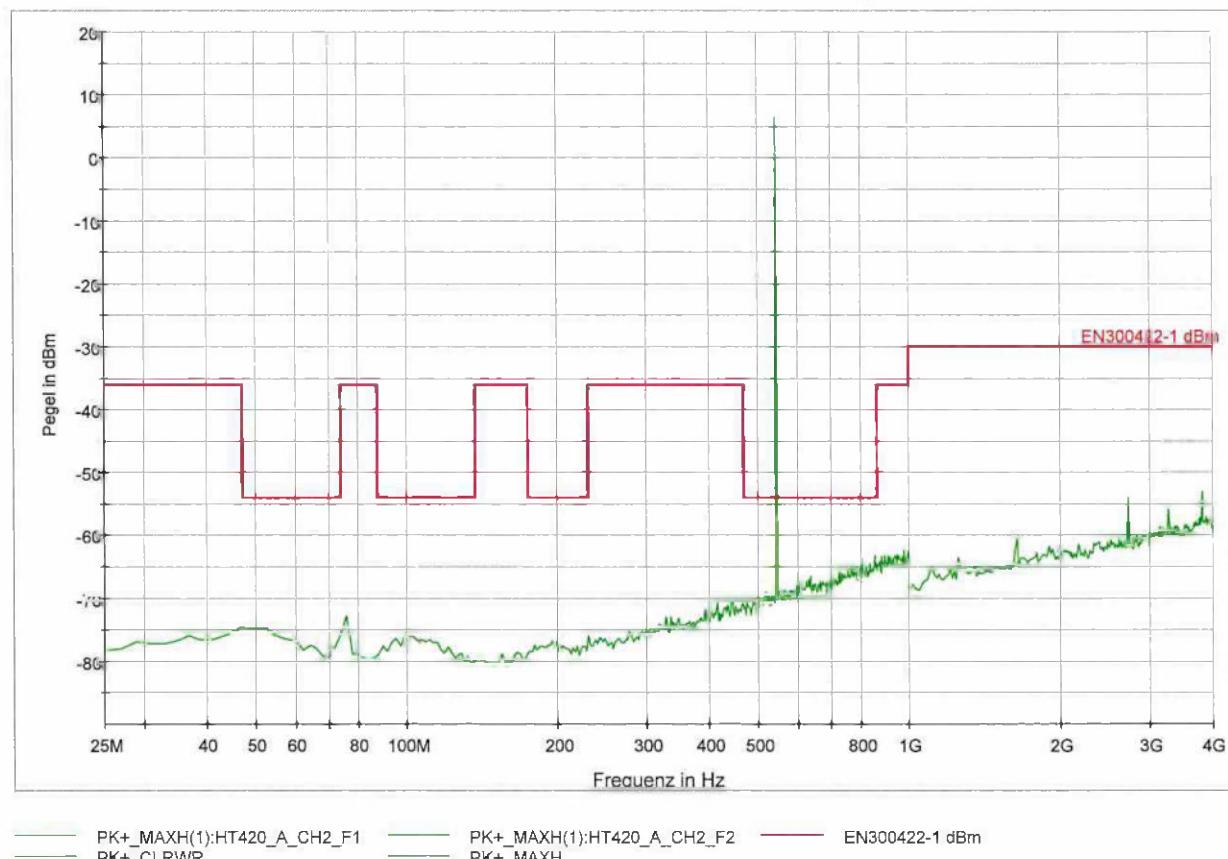
TRANSMITTER SPURIOUS EMISSIONS radiated

SUBCLAUSE 8.4

Operating mode: transmitter operating at 545 MHz

Rated output power: 8 mW

Modulation: unmodulated carrier



LIMIT

SUBCLAUSE 8.4.3

47 MHz to 74 MHz 87,5 MHz to 137 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies \leq 1000 MHz	Frequencies $>$ 1000 MHz
4,0 nW (-54 dBm)	250 nW (-36 dBm)	1,00 μ W (-30 dBm)

Test Equipment used: NT-100; NT-110/1; NT-111/1; NT-112/1; NT-131/1; NT-139; NT-337; NT-207

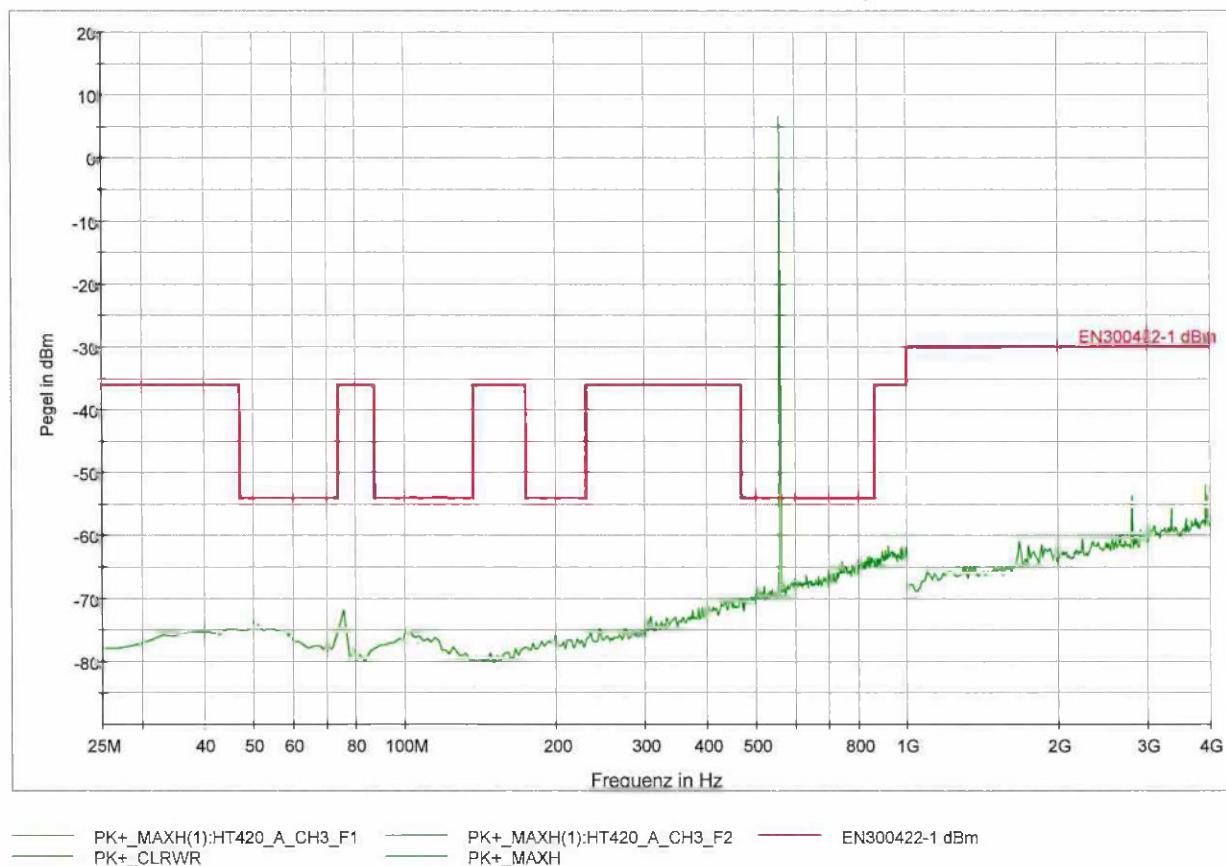
TRANSMITTER SPURIOUS EMISSIONS radiated

SUBCLAUSE 8.4

Operating mode: transmitter operating at 560 MHz

Rated output power: 8 mW

Modulation: unmodulated carrier



LIMIT

SUBCLAUSE 8.4.3

47 MHz to 74 MHz 87,5 MHz to 137 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies \leq 1000 MHz	Frequencies $>$ 1000 MHz
4,0 nW (-54 dBm)	250 nW (-36 dBm)	1,00 μ W (-30 dBm)

Test Equipment used: NT-100; NT-110/1; NT-111/1; NT-112/1; NT-131/1; NT-139; NT-337; NT-207

TRANSMITTER SPURIOUS EMISSIONS radiated

SUBCLAUSE 8.4

Operating mode: transmitter standby

Because the transmitter is operating after switching on, there is no standby mode available and no measurement was performed.

4.5 Transmitter intermodulation distortion

SUBCLAUSE 8.5

Radiated measurement

TX-IMD (dBc)			
Unwanted Signal	530 MHz	545 MHz	560 MHz
fw + 5 MHz	-43,5	-40,5	-45,6
fw - 5 MHz	-43,0	-40,2	-43,6
Measurement uncertainty	± 3dB		

LIMIT

SUBCLAUSE 8.5.3

The maximum resulting IMD product shall be at least 40 dB below the output power of the DUT.

Measuring equipment used:

NT-100; NT-111/1; NT-112/1; NT-113/1; NT-131/1; NT-210; NT-310; NT-310/1; EMV-205

Appendix 1

Test equipment used

<input type="checkbox"/> Anechoic Chamber with 3m measurement distance	NT-100	<input type="checkbox"/> Power quality analyzer Fluke 1760 (complete set)	NT-160 - NT-173	Division: Industry & Energy
<input type="checkbox"/> Stripline according to ISO 11452-5	NT-108	<input type="checkbox"/> Spectrumanalyzer – FSP7 9 kHz – 7 GHz	NT-200	Department: FG
<input type="checkbox"/> MA4000 - Antenna mast 1 - 4 m height	NT-110/1	<input type="checkbox"/> ESCI - Test receiver 9 kHz - 7 GHz	NT-203/1	Test report number: INE-AT/FG-19/110
<input type="checkbox"/> DS - Turntable 0 - 400 ° Azimuth	NT-111/1	<input type="checkbox"/> ESI26 – Test receiver 20 Hz – 26,5 GHz	NT-207	Page: 1 of 4
<input type="checkbox"/> CO3000 Controller Mast+Turntable	NT-112/1	<input type="checkbox"/> Digital Radio Tester CTS55	NT-208	Date: 01.02.2019
<input type="checkbox"/> HUF-Z3 - Log. Per. Antenna 200 - 1000 MHz	NT-121	<input type="checkbox"/> Noise-gen., ITU-R 559-2 20 Hz – 20 kHz	NT-209	
<input type="checkbox"/> FMZB1513 - Loop Antenna 9 kHz - 30 MHz	NT-122/1	<input type="checkbox"/> CMTA - Radiocommunication analyzer ; 0,1 - 1000 MHz	NT-210	
<input type="checkbox"/> HFH-Z6 - Rod Antenna 9 kHz - 30 MHz	NT-123	<input type="checkbox"/> 3271 - Spectrum analyzer 100 Hz - 26,5 GHz	NT-211	
<input type="checkbox"/> 3121C - Dipole Antenna 28 - 1000 MHz	NT-124	<input type="checkbox"/> Digital Radio Tester Aeroflex 3920	NT-212/1	
<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"/> RubiSource T&M Timing reference	NT-216	
<input type="checkbox"/> SAS-200/543 - Bicon. Antenna 20 MHz - 300 MHz	NT-127	<input type="checkbox"/> Radiocommunicationanalyzer SWR 1180 MD	NT-217	
<input type="checkbox"/> AT-1080 - Log. Per. Antenna 80 - 1000 MHz	NT-128	<input type="checkbox"/> Mixer M19HWD 40 GHz – 60 GHz	NT-218	
<input type="checkbox"/> HK-116 - bicon. Antenna 20 MHz - 300 MHz	NT-129	<input type="checkbox"/> Mixer M12HWD 60 GHz – 90 GHz	NT-219	
<input type="checkbox"/> HK-116 - bicon. Antenna 20 MHz - 300 MHz	NT-130	<input type="checkbox"/> DSO9104 Digital scope	NT-220/1	
<input type="checkbox"/> 3146 - Log. Per. Antenna 200 – 1000 MHz	NT-131	<input type="checkbox"/> TPS 2014 Digital scope	NT-222	
<input type="checkbox"/> VULB 9163 Trilog Antenna 30 – 3000 MHz	NT-131/1	<input type="checkbox"/> Artificial Ear according to IEC 60318	NT-224	
<input type="checkbox"/> Loop Antenna H-Field	NT-132	<input type="checkbox"/> 1 kHz Sound calibrator	NT-225	
<input type="checkbox"/> Horn Antenna 500 MHz - 2900 MHz	NT-133	<input type="checkbox"/> B10 - Harmonics and flicker analyzer	NT-232	
<input type="checkbox"/> Horn Antenna 500 MHz - 6000 MHz	NT-133/1	<input type="checkbox"/> SRM-3006 Spectrumanalyzer	NT-233/1a	
<input type="checkbox"/> Log. per. Antenna 800 MHz - 2500 MHz	NT-134	<input type="checkbox"/> E-field probe SRM 75 MHz – 3 GHz	NT-234	
<input type="checkbox"/> Log. per. Antenna 800 MHz - 2500 MHz	NT-135	<input type="checkbox"/> Field Meter NBM-500 incl. E- and H-Field probes	NT-240a-e	
<input type="checkbox"/> BiConiLog Antenna 26 MHz – 2000 MHz	NT-137	<input type="checkbox"/> Hall-Teslameter ETM-1	NT-241	
<input type="checkbox"/> Conical Dipol Antenna PCD8250	NT-138	<input type="checkbox"/> EFA-3 H-field- / E-field probe	NT-243	
<input type="checkbox"/> HF 906 - Horn Antenna 1 - 18 GHz (emission)	NT-139	<input type="checkbox"/> EHP-50F H-field- / E-field probe	NT-243/1	
<input type="checkbox"/> HZ-1 Antenna tripod	NT-150	<input type="checkbox"/> Field Meter EMR-200 100 kHz – 3 GHz	NT-244	
<input type="checkbox"/> BN 1500 Antenna tripod	NT-151	<input type="checkbox"/> E-field probe 100 kHz – 3 GHz	NT-245	
<input type="checkbox"/> Ant. tripod for EN61000-4-3 Model TP1000A	NT-156	<input type="checkbox"/> H-field probe 300 kHz – 30 MHz	NT-246	

Appendix 1 (continued)

Test equipment used

<input type="checkbox"/> E-field probe 3 MHz – 18 GHz	NT-247	<input type="checkbox"/> T82-50 RF-Amplifier 2 GHz – 8 GHz	NT-331	Division: Industry & Energy
<input type="checkbox"/> H-field probe 27 MHz – 1 GHz	NT-248	<input type="checkbox"/> 500W1000M7 - RF-Amplifier 80 - 1000 MHz / 500 W	NT-332	Department: FG
<input type="checkbox"/> ELT-400 1 Hz – 400 kHz	NT-249	<input type="checkbox"/> AS0102-65R - RF-Amplifier 1 GHz - 2 GHz	NT-333	Test report number: INE-AT/FG-19/110
<input type="checkbox"/> MDS 21 - Absorbing clamp 30 - 1000 MHz	NT-250	<input type="checkbox"/> APA01 - RF-Amplifier 0,5 GHz – 2,5 GHz	NT-334	Page: 2 of 4
<input type="checkbox"/> FCC-203I EM Injection clamp	NT-251	<input type="checkbox"/> Preamplifier 1 GHz - 4 GHz	NT-335	Date: 01.02.2019
<input type="checkbox"/> FCC-203I-DCN Ferrite decoupling network	NT-252	<input type="checkbox"/> Preamplifier for GPS MKU 152 A	NT-336	
<input type="checkbox"/> PR50 Current Probe	NT-253	<input type="checkbox"/> Preamplifier 100 MHz – 23 GHz	NT-337	
<input type="checkbox"/> i310s Current Probe	NT-254/1	<input type="checkbox"/> DC Block 10 MHz – 18 GHz Model 8048	NT-338	
<input type="checkbox"/> Fluke 87 V True RMS Multimeter	NT-260	<input type="checkbox"/> 2-97201 Electronic load	NT-341	
<input type="checkbox"/> Model 2000 Digital Multimeter	NT-261	<input type="checkbox"/> TSX3510P - Power supply 0-30 V / 0 - 10 A	NT-344	
<input type="checkbox"/> Fluke 87 V Digital Multimeter	NT-262/1	<input type="checkbox"/> TSX3510P - Power supply 0-30 V / 0 - 10 A	NT-345	
<input type="checkbox"/> ESH2-Z5-U1 Artificial mains network 4x25A	NT-300	<input type="checkbox"/> VDS 200 Mobil-impuls-generator	NT-350	
<input type="checkbox"/> ESH3-Z5-U1 Artificial mains network 2x10A	NT-301	<input type="checkbox"/> LD 200 Mobil-impuls-generator	NT-351	
<input type="checkbox"/> ESH3-Z6-U1 Artificial mains network 1x100A	NT-302	<input type="checkbox"/> MPG 200 Mobil-Impuls-Generators	NT-352	
<input type="checkbox"/> ESH3-Z6-U1 Artificial mains network 1x100A	NT-302a	<input type="checkbox"/> EFT 200 Mobil-impuls-generator	NT-353	
<input type="checkbox"/> PHE 4500/B Power amplifier	NT-304	<input type="checkbox"/> AN 200 S1 Artificial Network	NT-354	
<input type="checkbox"/> EZ10 T-Artificial Network	NT-305	<input type="checkbox"/> FP-EFT 32M 3 ph. Coupling filter (Burst)	NT-400/1	
<input type="checkbox"/> SMG - Signal generator 0,1 - 1000 MHz	NT-310	<input type="checkbox"/> PHE 4500 - Mains impedance network	NT-401	
<input type="checkbox"/> SMA100A - Signal generator 9 kHz - 6 GHz	NT-310/1	<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"/> ESD 30 System up to 25 kV	NT-321	<input type="checkbox"/> Highpass-Filter 600 MHz – 4 GHz	NT-413	
<input type="checkbox"/> PSURGE 4.1 Surge generator	NT-324	<input type="checkbox"/> Highpass-Filter 1250 MHz – 4 GHz	NT-414	
<input type="checkbox"/> IMU4000 Immunity test system	NT-325/1	<input type="checkbox"/> Highpass-Filter 1800 MHz – 16 GHz	NT-415	
<input type="checkbox"/> VCS 500-M6 Surge-Generator	NT-326			
<input type="checkbox"/> Oscillatory Wave Simulator incl. Coupling networks	NT-328a+b+c			
<input type="checkbox"/> BTA-250 - RF-Amplifier 9 kHz - 220 MHz / 250 W	NT-330			

Appendix 1 (continued)

Test equipment used

<input type="checkbox"/> Highpass-Filter 3500 MHz – 18 GHz	NT-416	<input type="checkbox"/> FCC-801-AF10 Coupling decoupling network	NT-461	Division: Industry & Energy
<input type="checkbox"/> RF-Attenuator 10 dB DC – 18 GHz / 50 W	NT-417	<input type="checkbox"/> FCC-801-S25 Coupling decoupling network	NT-462	Department: FG
<input type="checkbox"/> RF-Attenuator 6 dB DC – 18 GHz / 50 W	NT-418	<input type="checkbox"/> FCC-801-T4 Coupling decoupling network	NT-463	Test report number: INE-AT/FG-19/110
<input type="checkbox"/> RF-Attenuator 3 dB DC – 18 GHz / 50 W	NT-419	<input type="checkbox"/> FCC-801-C1 Coupling decoupling network	NT-464	Page: 3 of 4
<input type="checkbox"/> RF-Attenuator 20 dB DC - 1000 MHz / 25 W	NT-421	<input type="checkbox"/> SW 9605 - Current probe 150 kHz – 30 MHz	NT-465/1	Date: 01.02.2019
<input type="checkbox"/> RF-Attenuator 30 dB DC - 1000 MHz / 1 W	NT-423	<input type="checkbox"/> 95242-1 – Current probe 1 MHz – 400 MHz	NT-468	
<input type="checkbox"/> RF-Attenuator 30 dB	NT-424	<input type="checkbox"/> 94106-1L-1 – Current probe 100 kHz – 450 MHz	NT-471	
<input type="checkbox"/> RF-Attenuator 6 dB DC - 1000 MHz / 1 W	NT-425	<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-426	<input type="checkbox"/> Coupling networks according to EN 61000-4-16	NT-481 - NT-483	
<input type="checkbox"/> RF-Attenuator 6 dB	NT-428	<input type="checkbox"/> Van der Hoofden Test Head	NT-484	
<input type="checkbox"/> RF-Attenuator 0 dB - 81 dB	NT-429	<input type="checkbox"/> EMC Video/Audiosystem	NT-511/1	
<input type="checkbox"/> WRU 27 - Band blocking 27 MHz	NT-430	<input type="checkbox"/> ES-K1 Version 1.71 SP2 Test software	NT-520	
<input type="checkbox"/> WHJ450C9 AA - High pass 450 MHz	NT-431	<input type="checkbox"/> EMC32 Version 10.50.00 Test software	NT-520/1	
<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"/> SRM-TS Version 1.3.1 software for SRM-3006	NT-522/1	
<input type="checkbox"/> Impedance transducer 1:4 ; 1:9 ; 1:16	NT-435	<input type="checkbox"/> Spitzenerberger und Spies Test software V4.1	NT-525	
<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 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+#6 ESD-cable (2x470k)	NT-555 + NT-556	
<input type="checkbox"/> ESH3-Z2 - Pulse limiter 9 kHz - 30 MHz	NT-441	<input type="checkbox"/> Test cable #8 Sucoflex 104EA	NT-559	
<input type="checkbox"/> Power Divider 6 dB/1 W/50 Ohm	NT-443	<input type="checkbox"/> Test cable #9 (for outdoor measurements)	NT-580	
<input type="checkbox"/> Directional coupler 0,1 MHz – 70 MHz	NT-444	<input type="checkbox"/> Test cable #10 (for outdoor measurements)	NT-581	
<input type="checkbox"/> Directional coupler 0,1 MHz – 70 MHz	NT-445	<input type="checkbox"/> Test cable #13 Sucoflex 104PE	NT-584	
<input type="checkbox"/> Tube imitations according to EN 55015	NT-450	<input type="checkbox"/> Test cable #21 for SRM-3000	NT-592	
<input type="checkbox"/> FCC-801-M3-16A Coupling decoupling network	NT-458	<input type="checkbox"/> Shield chamber	NT-600	
<input type="checkbox"/> FCC-801-M2-50A Coupling decoupling network	NT-459	<input type="checkbox"/> Climatic chamber	M-1200	
<input type="checkbox"/> FCC-801-M5-25 Coupling decoupling network	NT-460			

Appendix 1 (continued)

Test equipment used

<input type="checkbox"/> Anechoic Chamber 3 m / 5 m measuring distance	EMV-100	<input type="checkbox"/> Log.per Antenna 0,7 – 9 GHz STLP9149	EMV-305	Division: Industry & Energy
<input type="checkbox"/> Turntabel 6 m diameter	EMV-101	<input type="checkbox"/> HF- Amplifier 9 kHz-250 MHz BBA150 (low noise)	EMV-306	Department: FG
<input type="checkbox"/> Antenna mast 1 – 4 m	EMV-102	<input type="checkbox"/> Load Dump Generator LD 200N	EMV-350	Test report number: INE-AT/FG-19/110
<input type="checkbox"/> Mast and Turntable controller FC-06	EMV-103	<input type="checkbox"/> Ultra Compact Simulator UCS 200N100	EMV-351	Page: 4 of 4
<input type="checkbox"/> EMC Video/Audiosystem	EMV-104	<input type="checkbox"/> Automotive Power fail module PFM 200N100.1	EMV-352	Date: 01.02.2019
<input type="checkbox"/> EMC Software EMC32 Version 10.50.00	EMV-105	<input type="checkbox"/> Voltage Drop Simulator VDS 200Q100	EMV-353	
<input type="checkbox"/> Hornantenna 1 – 18 GHz HF 907	EMV-110	<input type="checkbox"/> Arb. Generator AutoWave	EMV-354	
<input type="checkbox"/> Antennapre.amp. 1 – 18 GHz ERZ-LNA0200-1800-30-2	EMV-111	<input type="checkbox"/> Ultra Compact Simulator UCS 500N7	EMV-355	
<input type="checkbox"/> Trilog Antenna 30-3000 MHz VULB9163	EMV-112	<input type="checkbox"/> Coupling decoupling network CNI 503B7 / 32 A	EMV-356	
<input type="checkbox"/> Monopol 9 kHz – 30 MHz VAMP 9243	EMV-113	<input type="checkbox"/> Coupling decoupling network CNI 503B7 / 63 A	EMV-357	
<input type="checkbox"/> Antennapre.amp 18 – 40 GHz BBV 9721	EMV-114	<input type="checkbox"/> Telecom Surge Generator TSurge 7	EMV-358	
<input type="checkbox"/> Hornantenna 200 – 2000 MHz AH-220	EMV-115	<input type="checkbox"/> Coupling decoupling network CNI 508N2	EMV-359	
<input type="checkbox"/> DC Artificial Network PVDC 8300	EMV-150	<input type="checkbox"/> Coupling decoupling network CNV 504N2.2	EMV-360	
<input type="checkbox"/> AC Artificial Network NNLK 8121 RC	EMV-151	<input type="checkbox"/> Immunity generator NSG4060/NSG4060-1	EMV-361	
<input type="checkbox"/> EMI Receiver ESR26	EMV-200	<input type="checkbox"/> Coupling network CDND M316-2	EMV-362	
<input type="checkbox"/> Signalgenerator 9 kHz – 40 GHz N5173B	EMV-201	<input type="checkbox"/> Coupling network CT419-5	EMV-363	
<input type="checkbox"/> GPS Frequency normal B-88	EMV-202	<input type="checkbox"/> ESD Generator NSG 437	EMV-364	
<input type="checkbox"/> DC Power supply N5745A	EMV-203	<input type="checkbox"/> Pulse Limiter VTSD 9561-F BNC	EMV-405	
<input type="checkbox"/> Spektrum Analyzator FSV40	EMV-205	<input type="checkbox"/> Transient emission BSM200N40+BS200N100	EMV- 450+451	
<input type="checkbox"/> Thd Multimeter Model 2015	EMV-206	<input type="checkbox"/> Cap. Coupling Clamp HFK	EMV-455	
<input type="checkbox"/> Poweramplifier PAS15000	EMV- 207/abc	<input type="checkbox"/> Mag. Field System MS100N+MC26100+MC2630	EMV- 456-458	
<input type="checkbox"/> Inrush Current Source	EMV- 208/abc	<input type="checkbox"/> Coupling network CDN M2-100A	EMV-459	
<input type="checkbox"/> Arb.-generator Sycore	EMV-209	<input type="checkbox"/> Coupling network CDN M3-32A	EMV-460	
<input type="checkbox"/> Harmonics/Flicker analyzer ARS 16/3	EMV-210	<input type="checkbox"/> Coupling network CDN M5-100A	EMV-461	
<input type="checkbox"/> HF- Amplifier 9 kHz-250 MHz BBA150	EMV-300	<input type="checkbox"/> Current Clamp CIP 9136A	EMV-462	
<input type="checkbox"/> HF- Amplifier 80 -1000 MHz BBA150	EMV-301	<input type="checkbox"/> DC Artificial Network HV-AN 150	EMV- 464+465	
<input type="checkbox"/> HF- Amplifier 0,8 - 6 GHz BBA150	EMV-302	<input type="checkbox"/> Coupling Clamp EM 101	EMV-466	
<input type="checkbox"/> High Power Ant. 20-200 MHz VHBD 9134	EMV-303	<input type="checkbox"/> Decoupling Clamp FTC 101	EMV-467	
<input type="checkbox"/> Log.per Antenna 80-2700 MHz STLP 9128 E special	EMV-304	<input type="checkbox"/> Power attenuator 10 dB / 250 Watt	EMV-469/2	