

TEST REPORT

of the accredited test laboratory

TÜV Nr.:INE-AT/FG-18/161

TÜV AUSTRIA
SERVICES GMBH

Office:
Deutschstrasse 10
1230 Vienna/Austria
T: +43 5 0454-0
F: +43 5 0454-6505
E: pzw@tuv.at
W: www.tuv.at

Business Area
Industry & Energy
Austria

Technik

Applicant: KEBAAG
Gewerbepark Urfahr
A-4041 Linz

Tested Product: RFID reader module

FCC-ID: U870008

IC-ID: 20800-RFIDUNI

Manufacturer: See Applicant

Output power / 64,7 dBµV/m@ **power supply:** 5VDC
field strength: 3m distance

Frequency range: 13,56 MHz **Channel separation:** N/A

Standard: FCC: 47 CFR Part 15 (October 1, 2017 edition)
RSS-210 Issue 9, August 2016



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

Notified Body 0408
IC 2932K-1

Non-executive
Board of Directors:
KR Dr. Johann
Marihart

Management:
Dr. Dr. Stefan Haas
Mag. Christoph
Weninger

Registered Office:
Deutschstrasse 10
1230 Vienna/Austria

Branch Offices:
www.tuv.at/standorte

Company Register
Court / - Number:
Vienna / FN 288476 f

Bank Details:
IBAN
AT1 3120005294900106
BIC BKAUATWW

IBAN
AT15 31000 0010 409326
BIC RZBAATWW

VAT ATU63240488
DVR 3002476

TUV Austria Services GmbH
Test laboratory for EMC

Supervisor of EMC-laboratory:

Ing. Wilhelm Seier



Copy Nbr.: 01

checked by:

Ing. Michael Emminger

A publication of this test report is only permitted literally.
Copying or reproduction of partial sections needs a written permission of
TUV Austria Services GmbH.

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

Contents

	Designation	PAGE
1.	Applicant	3
2.	Description of EUT	4
3.	Standards / Final result	5
4.	Test results	
	List of measurements according to 47 CFR 15 and RSS-210	
4.1	Test object data	6
4.2	Field strength of emissions at 13,110 – 14,010 MHz	7
4.3	Emissions outside 13,110 – 14,010 MHz (15.209)	8-10
4.4	Frequency tolerance	*
Appendix	Designation	PAGES
1	Test equipment used	4
2	Photodocumentation	8

*) As no changes were made at the frequency determining stage, no measurement was performed. See original test report INE-AT/FG-17/142 for measurement results.

1. Applicant

Company: KEBAAG
Department: Development Center
Address: 4041 Linz/Austria, Gewerbepark Urfahr
Contact person: Mr. Christian Leitner

EUT received on: 17.09.2018

Tests were performed on: 17.09.2018

2. Description of EUT

EUT: RFID module "RFID UNI MODUL"

Serial Number: Prototype

Manufacturer: KEBAAG
4041 Linz/Austria, Gewerbepark Urfahr

Description: KEBA AG provided the following configuration for the measurements:

Prototype

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

Continuous transmission – module folded

Technical data EUT: Rated voltage: 5VDC
Rated current: <1A
Rated frequency: DC

Mains voltage during the tests: 5V DC via USB connector

Climatic conditions in the emc laboratory: Relative humidity: 55%
Temperature: 23°C

3. Standards/ Final result

Name	Title	Deviation	Result
Title 47 CFR Part 15 October 1, 2017 edition	RADIO FREQUENCY DEVICES	none	OK
RSS-210 Issue 9 August 2016	Licence-Exempt Radio Apparatus: Category I Equipment	none	OK
<p>Result: Opinions and interpretation of testing laboratory OK: EUT passed NOK: EUT failed</p>			

This test report covers a change in equipment. As the RF part was not changed, not all measurements were performed and only unfolded module measurements were made, as those represented the worst case in the original test report INE-AT/FG-17/142.

4. Test results

4.1 TEST OBJECT DATA

General EUT Description

This RFID module device is intended to read data from NFC tags. It therefore uses 13,56 MHz at a very low transmitter signal level.

2.1033 (c) Technical description

2.1033 (4) Type of emission: continuous transmission

2.1033 (5) Frequency range: only one operating frequency 13,56 MHz.

2.1033 (6) Power range and Controls: Fixed output power resulting in 64,7 dB μ V/m field strength in 3m distance.

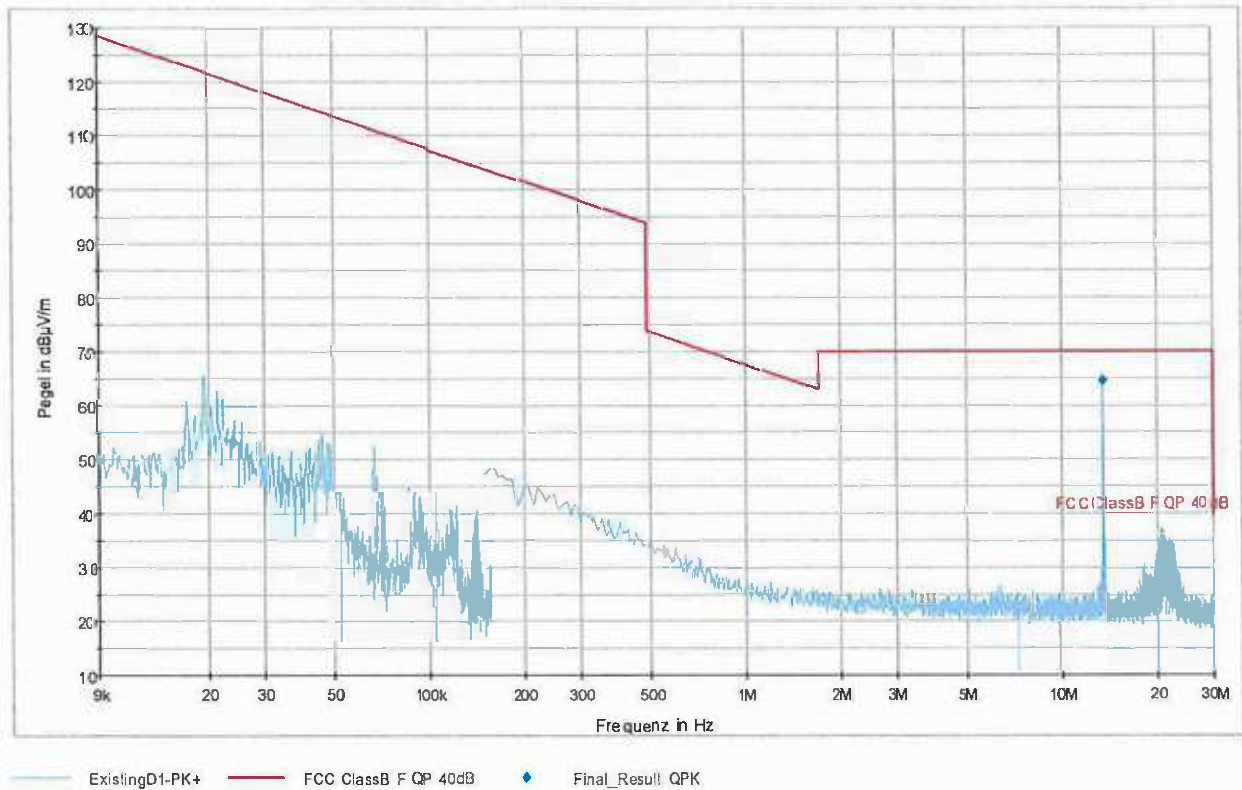
2.1033 (7) Maximum output power rating: 64,7 dB μ V/m@ 3m distance.

2.1033 (8) DC Voltage and Current: 5 V DC powered
Maximum current consumption: 50 mA

4.2 Field strength of emissions at 13,110 –14,010 MHz

§ 15.225 (a) (b) (c)
B.6

Module unfolded



Field strength at 13,56 MHz: 64,7 dBµV/m \approx 1718 µV/m at 3 m distance. Converted with 40dB per decade for the 30m Limit this would be a Level of 24,7 dBµV/m or 17,18 µV/m.

LIMIT SUBCLAUSE 15.225(a) (b) (c) (B.6)

(a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

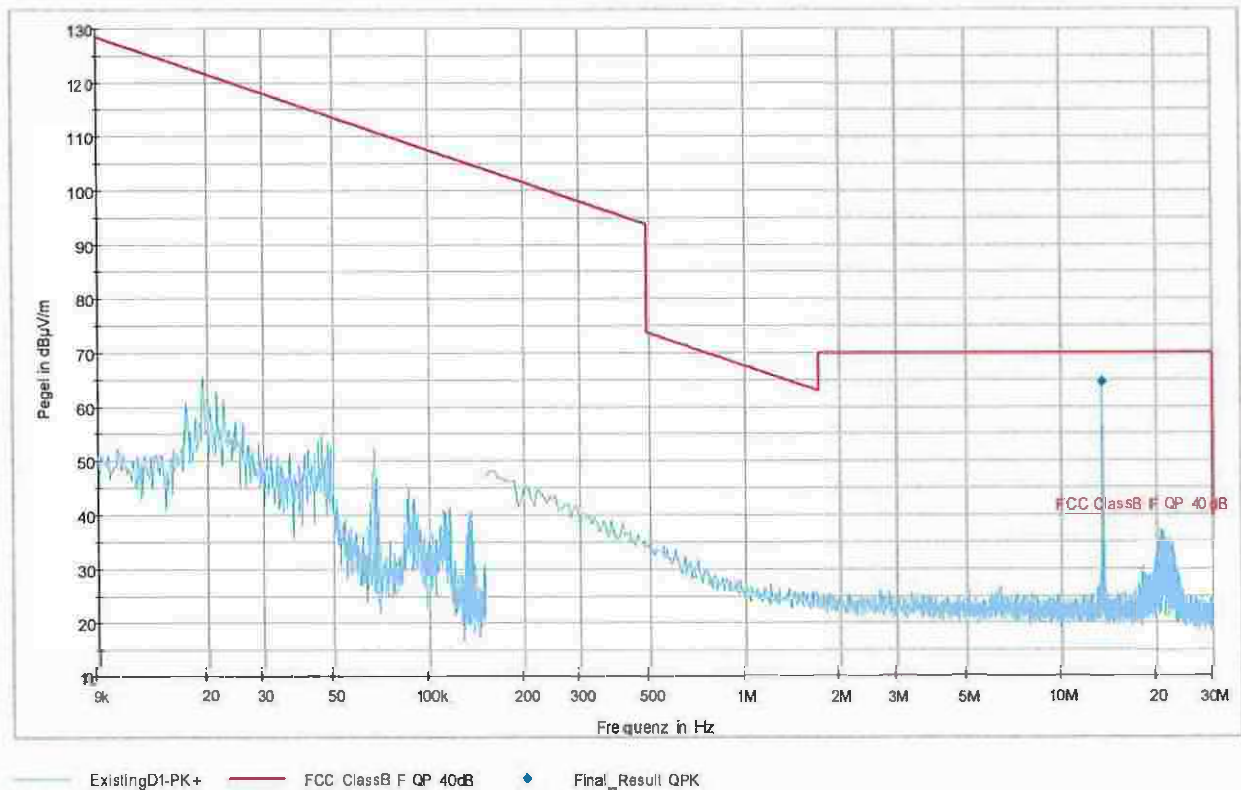
(c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

Test Equipment used: EMV-100; EMV-101; EMV-103; EMV-105; NT-122; NT-151; EMV-200

4.3 Emissions outside 13,110–14,010 MHz

§ 15.225 (d)
B.6

Module unfolded



LIMIT

SUBCLAUSE 15.225(d) (15.209) (B.6 / RSS-Gen)

(d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

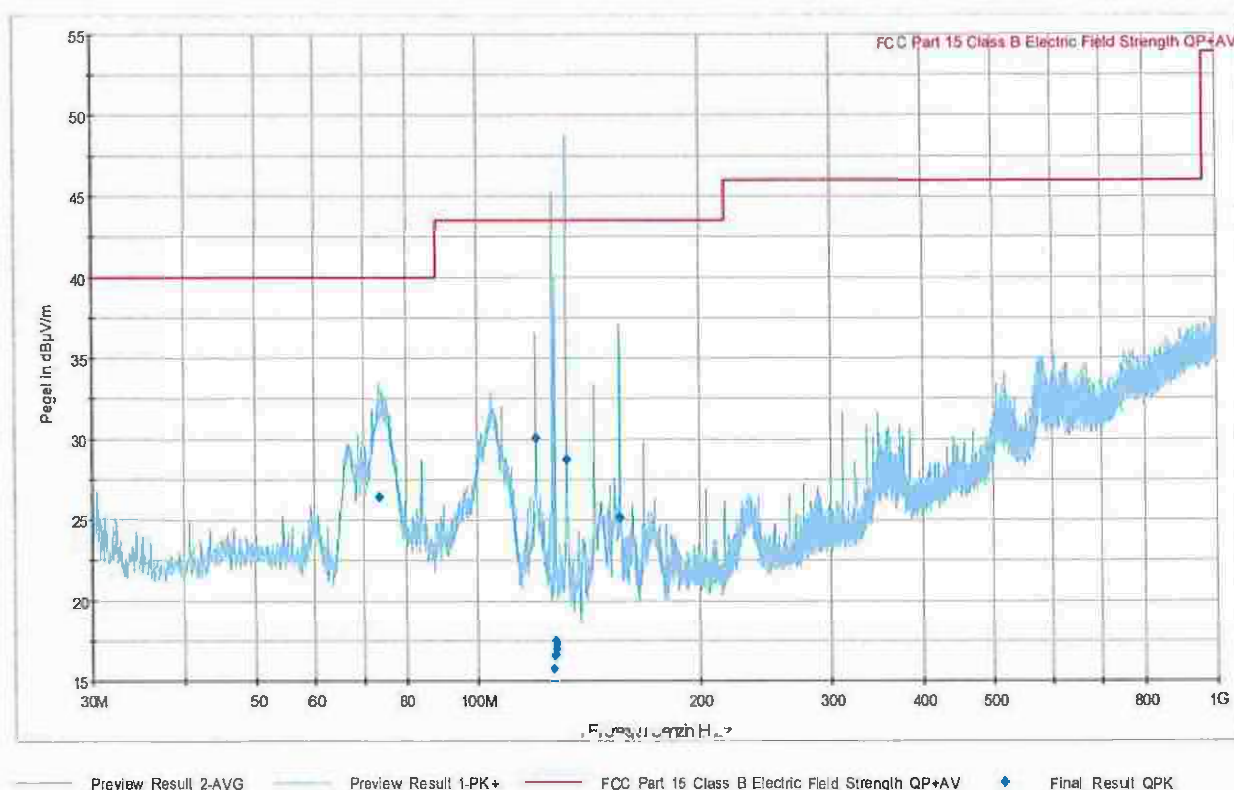
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100**	3
88–216	150**	3
216–960	200**	3
Above 960	500	3

Test Equipment used: EMV-100; EMV-101; EMV-103; EMV-105; NT-122; NT-151; EMV-200

Emissions outside 13,110 –14,010 MHz

§ 15.225 (d)
B.6

Module unfolded



Worst Case Quasipeak Level at 120,00 MHz: 30,07 dBµV/m@ 3m.

LIMIT SUBCLAUSE 15.225(d) (15.209) (B.6 / RSS-Gen)

(d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

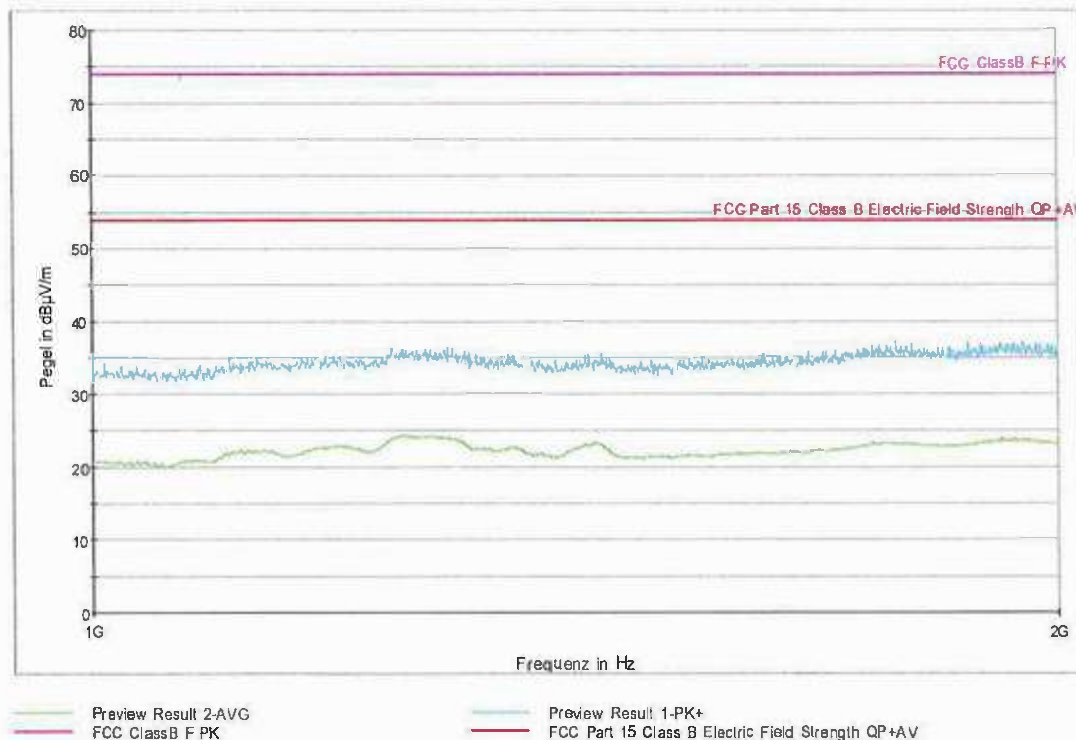
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100**	3
88–216	150**	3
216–960	200**	3
Above 960	500	3

Test Equipment used: EMV-100; EMV-101; EMV-102; EMV-103; EMV-105; EMV-112; EMV-200

Emissions outside 13,110 –14,010 MHz

§ 15.225 (d)
B.6

Green line: Peak measurement; Magenta line: Average measurement



As the highest internal frequency of the digital control device is 320 MHz, measurements were performed up to 2 GHz. As the emissions below 1 GHz were quite the same if folded or unfolded, only unfolded module was measured above 1 GHz.

LIMIT

SUBCLAUSE 15.225(d) (15.209) (B.6 / RSS-Gen)

(d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100**	3
88–216	150**	3
216–960	200**	3
Above 960	500	3

TestEquipmentused: EMV-100; EMV-101; EMV-102; EMV-103; EMV-105; EMV-110; EMV-111; EMV-200

Appendix 1

Test equipment used

<input 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"/> ESCI – Test receiver 9 kHz – 7 GHz	NT-203/1
<input type="checkbox"/> MA4000 – Antenna mast 1 - 4 m height	NT-110/1	<input type="checkbox"/> ESI26 – Test receiver 20 Hz – 26,5 GHz	NT-207
<input type="checkbox"/> DS – Turntable 0 - 400 ° Azimuth	NT-111/1	<input type="checkbox"/> Digital Radio Tester CTS55	NT-208
<input type="checkbox"/> CO3000 Controller Mast+ Turntable	NT-112/1	<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"/> FMZB1513 – Loop Antenna 9 kHz - 30 MHz	NT-122/1	<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"/> Mixer M28HW 26,5 GHz - 40 GHz	NT-214
<input type="checkbox"/> 3115 – Horn Antenna 1 - 18 GHz (immunity)	NT-125	<input type="checkbox"/> RubiSource T&M Timing reference	NT-216
<input type="checkbox"/> 3116 – Horn Antenna 18 - 40 GHz	NT-126	<input type="checkbox"/> Radiocommunication analyzer SWR 1180 MD	NT-217
<input type="checkbox"/> SAS-200/543 – Bicon. Antenna 20 MHz - 300 MHz	NT-127	<input type="checkbox"/> Mixer M19HWD 40 GHz – 60 GHz	NT-218
<input type="checkbox"/> AT-1080 – Log. Per. Antenna 80 - 1000 MHz	NT-128	<input type="checkbox"/> Mixer M12HWD 60 GHz – 90 GHz	NT-219
<input type="checkbox"/> HK-116 – bicon. Antenna 20 MHz - 300 MHz	NT-129	<input type="checkbox"/> DSO9104 Digital scope	NT-220/1
<input type="checkbox"/> HK-116 – bicon. Antenna 20 MHz - 300 MHz	NT-130	<input type="checkbox"/> TPS 2014 Digital scope	NT-222
<input type="checkbox"/> 3146 – Log. Per. Antenna 200–1000 MHz	NT-131	<input type="checkbox"/> Artificial Ear according to IEC 60318	NT-224
<input type="checkbox"/> VULB 9163 Trilog Antenna 30–3000 MHz	NT-131/1	<input type="checkbox"/> 1 kHz Sound calibrator	NT-225
<input type="checkbox"/> Loop Antenna H-Field	NT-132	<input type="checkbox"/> B10- Harmonics and flicker analyzer	NT-232
<input type="checkbox"/> Horn Antenna 500 MHz - 2900 MHz	NT-133	<input type="checkbox"/> SRM-3006 Spectrumanalyzer	NT-233/1a
<input type="checkbox"/> Horn Antenna 500 MHz - 6000 MHz	NT-133/1	<input type="checkbox"/> E-field probe SRM 75 MHz–3 GHz	NT-234
<input type="checkbox"/> Log. per. Antenna 800 MHz - 2500 MHz	NT-134	<input type="checkbox"/> Field Meter NBM-500 incl. E- and H-Field probes	NT-240a-e
<input type="checkbox"/> Log. per. Antenna 800 MHz - 2500 MHz	NT-135	<input type="checkbox"/> Hall-Teslameter ETM-1	NT-241
<input type="checkbox"/> BiConiLog Antenna 26 MHz – 2000 MHz	NT-137	<input type="checkbox"/> EFA-3 H-field- / E-field probe	NT-243
<input type="checkbox"/> Conical Dipol Antenna PCD8250	NT-138	<input type="checkbox"/> EHP-50F H-field- / E-field probe	NT-243/1
<input type="checkbox"/> HF 906 – Horn Antenna 1 - 18 GHz (emission)	NT-139	<input type="checkbox"/> Field Meter EMR-200 100 kHz – 3 GHz	NT-244
<input type="checkbox"/> HZ-1 Antenna tripod	NT-150	<input type="checkbox"/> E-field probe 100 kHz – 3 GHz	NT-245
<input type="checkbox"/> BN 1500 Antenna tripod	NT-151	<input type="checkbox"/> H-field probe 300 kHz – 30 MHz	NT-246
<input type="checkbox"/> Ant. tripod for EN61000-4-3 Model TP1000A	NT-156		
<input type="checkbox"/> Power quality analyzer Fluke 1760 (complete set)	NT-160 - NT-173		


Division:
Industry & Energy

Department: FG

Testreport number:
INE-AT/FG-18/161

Page: 1 of 4

Date: 17.09.2018

Checked by: 

Appendix 1 (continued) Test equipment used

<input type="checkbox"/> E-field probe 3 MHz – 18 GHz	NT-247	<input type="checkbox"/> 500W1000M7 - RF-Amplifier 80-1000 MHz/ 500 W	NT-332
<input type="checkbox"/> H-field probe 27 MHz – 1 GHz	NT-248	<input type="checkbox"/> AS0102-65R - RF-Amplifier 1 GHz - 2 GHz	NT-333
<input type="checkbox"/> ELT-400 1 Hz – 400 kHz	NT-249	<input type="checkbox"/> APA01 - RF-Amplifier 0,5 GHz – 2,5 GHz	NT-334
<input type="checkbox"/> MDS 21 - Absorbing clamp 30 - 1000 MHz	NT-250	<input type="checkbox"/> Preamplifier 1 GHz - 4 GHz	NT-335
<input type="checkbox"/> FCC-203I EM Injection clamp	NT-251	<input type="checkbox"/> Preamplifier for GPS MKU 152 A	NT-336
<input type="checkbox"/> FCC-203I-DCN Ferrite decoupling network	NT-252	<input type="checkbox"/> Preamplifier 100 MHz – 23 GHz	NT-337
<input type="checkbox"/> PR50 Current Probe	NT-253	<input type="checkbox"/> DC Block 10 MHz – 18 GHz Model 8048	NT-338
<input type="checkbox"/> i310s Current Probe	NT-254/1	<input type="checkbox"/> 2-97201 Electronic load	NT-341
<input type="checkbox"/> Fluke 87 V True RMS Multimeter	NT-260	<input type="checkbox"/> TSX351 0P - Power supply 0-30 V / 0-10 A	NT-344
<input type="checkbox"/> Model 2000 Digital Multimeter	NT-261	<input type="checkbox"/> TSX3510P - Power supply 0-30 V / 0-10 A	NT-345
<input type="checkbox"/> Fluke 87 V Digital Multimeter	NT-262/1	<input type="checkbox"/> VDS 200 Mobil-impuls-generator	NT-350
<input type="checkbox"/> ESH2-Z5-U1 Artificial mains network 4x25A	NT-300	<input type="checkbox"/> LD 200 Mobil-impuls-generator	NT-351
<input type="checkbox"/> ESH3-Z5-U1 Artificial mains network 2x10A	NT-301	<input type="checkbox"/> MPG 200 Mobil-Impuls-Generators	NT-352
<input type="checkbox"/> ESH3-Z6-U1 Artificial mains network 1x100A	NT-302	<input type="checkbox"/> EFT 200 Mobil-impuls-generator	NT-353
<input type="checkbox"/> ESH3-Z6-U1 Artificial mains network 1x100A	NT-302a	<input type="checkbox"/> AN 200 S1 Artificial Network	NT-354
<input type="checkbox"/> PHE 4500/B Power amplifier	NT-304	<input type="checkbox"/> FP-EFT 32M 3 ph. Coupling filter (Burst)	NT-400/1
<input type="checkbox"/> EZ10 T-Artificial Network	NT-305	<input type="checkbox"/> PHE 4500 - Mains impedance network	NT-401
<input type="checkbox"/> SMG - Signal generator 0,1 - 1000 MHz	NT-310	<input type="checkbox"/> IP 6.2 Coupling filter for data lines (Surge)	NT-403
<input type="checkbox"/> SMA100A - Signalgenerator 9 kHz - 6 GHz	NT-310/1	<input type="checkbox"/> TK 9421 High Power Volt. Probe 150 kHz - 30 MHz	NT-409
<input type="checkbox"/> RefRad Reference generator	NT-312	<input type="checkbox"/> ESH2-Z3 - Probe 9 kHz - 30 MHz	NT-410
<input type="checkbox"/> SMP 02 Signal generator 10 MHz - 20 GHz	NT-313	<input type="checkbox"/> IP 4 - Capacitive clamp (Burst)	NT-411
<input type="checkbox"/> 40 MHz Arbitrary Generator TGA1241	NT-315	<input type="checkbox"/> Highpass-Filter 100 MHz – 3 GHz	NT-412
<input type="checkbox"/> Artificial mains network NSLK 8127-PLC	NT-316	<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
<input type="checkbox"/> PSURGE 4.1 Surge generator	NT-324	<input type="checkbox"/> Highpass-Filter 1800 MHz – 16 GHz	NT-415
<input type="checkbox"/> IMU4000 Immunity test system	NT-325/1		
<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		
<input type="checkbox"/> T82-50 RF-Amplifier 2 GHz – 8 GHz	NT-331		


Division:
Industry & Energy

Department: FG

Testreport number:
INE-AT/FG-18/161

Page: 2 of 4

Date: 17.09.2018

Checked by: 

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
<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
<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
<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
<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
<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"/> 94106-1 L-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 10.40.00 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 150W	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"/> Spitzenberger und Spies Testsoftware V4.1	NT-525
<input type="checkbox"/> RF-Attenuator DC – 18 GHz 6 dB	NT-436	<input type="checkbox"/> Noise powertest 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		


Division:
Industry & Energy

Department: FG

Test report number:
INE-AT/FG-18/161

Page: 3 of 4

Date: 17.09.2018

Checked by: 

Appendix 1 (continued)

Test equipment used

<input type="checkbox"/>	Anechoic Chamber 3 m / 5 m measuring distance	EMV-100	<input type="checkbox"/>	Logger Antenna 0,7 – 9 GHz STLP9149	EMV-305
<input type="checkbox"/>	Turntabel 6 m diameter	EMV-101	<input type="checkbox"/>	HF- Amplifier 9 kHz-250 MHz BBA 150 (low noise)	EMV-306
<input type="checkbox"/>	Antenna mast 1 – 4 m	EMV-102	<input type="checkbox"/>	Load Dump Generator LD 200N	EMV-350
<input type="checkbox"/>	Mast and Turntable controller FC-06	EMV-103	<input type="checkbox"/>	Ultra Compact Symulator UCS 200N100	EMV-351
<input type="checkbox"/>	EMC Video/Audiosystem	EMV-104	<input type="checkbox"/>	Automotive Power fail module PFM 200N100.1	EMV-352
<input type="checkbox"/>	EMC Software EMC32 Version 10.40.00	EMV-105	<input type="checkbox"/>	Voltage Drop Symulator 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 Symulator 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-110	<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 NSG437	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 MS 100N+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"/>	Logger Antenna 80-2700 MHz STLP 9128 E special	EMV-304	<input type="checkbox"/>	Power attenuator 10 dB / 250 Watt	EMV-469/2

Division:
Industry & Energy

Department: FG

Test report number:
INE-AT/FG-18/161

Page: 4 of 4

Date: 17.09.2018

Checked by: 

Appendix 2 Photodocumentation

Description: Module unfolded - view #1

Division:
Industry & Energy

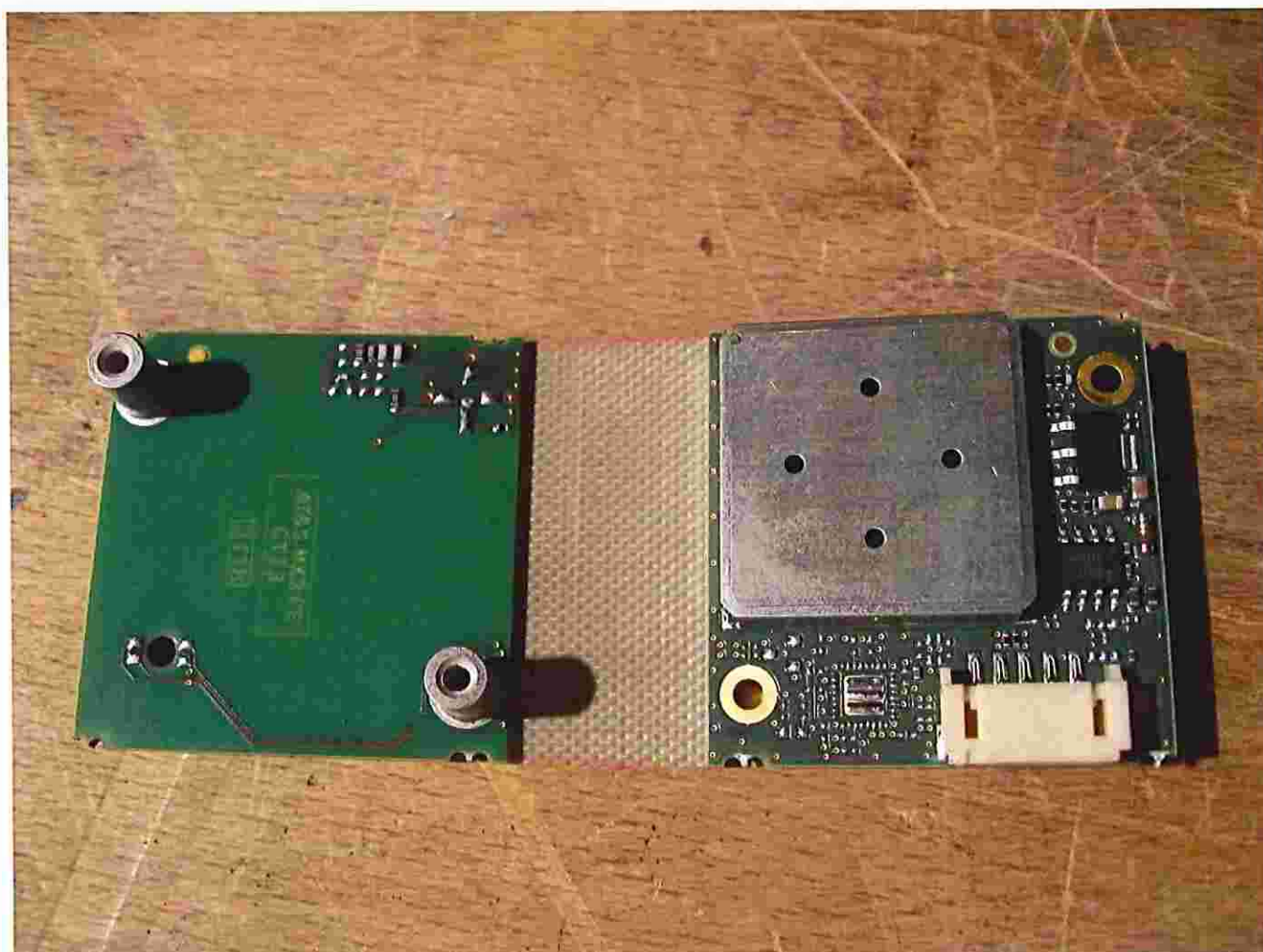
Department: FG

Testreport reference:
INE-AT/FG-18/161

Page: 1 of 8

Date: 17.09.2018

checked by: *h*



Appendix 2 Photodocumentation

Description: Module unfolded - view #2

Division:
Industry & Energy

Department: FG

Testreport reference:
INE-AT/FG-18/161

Page: 2 of 8

Date: 17.09.2018

checked by: 



Appendix 2 Photodocumentation

Description: RF shielding detached

Division:
Industry & Energy

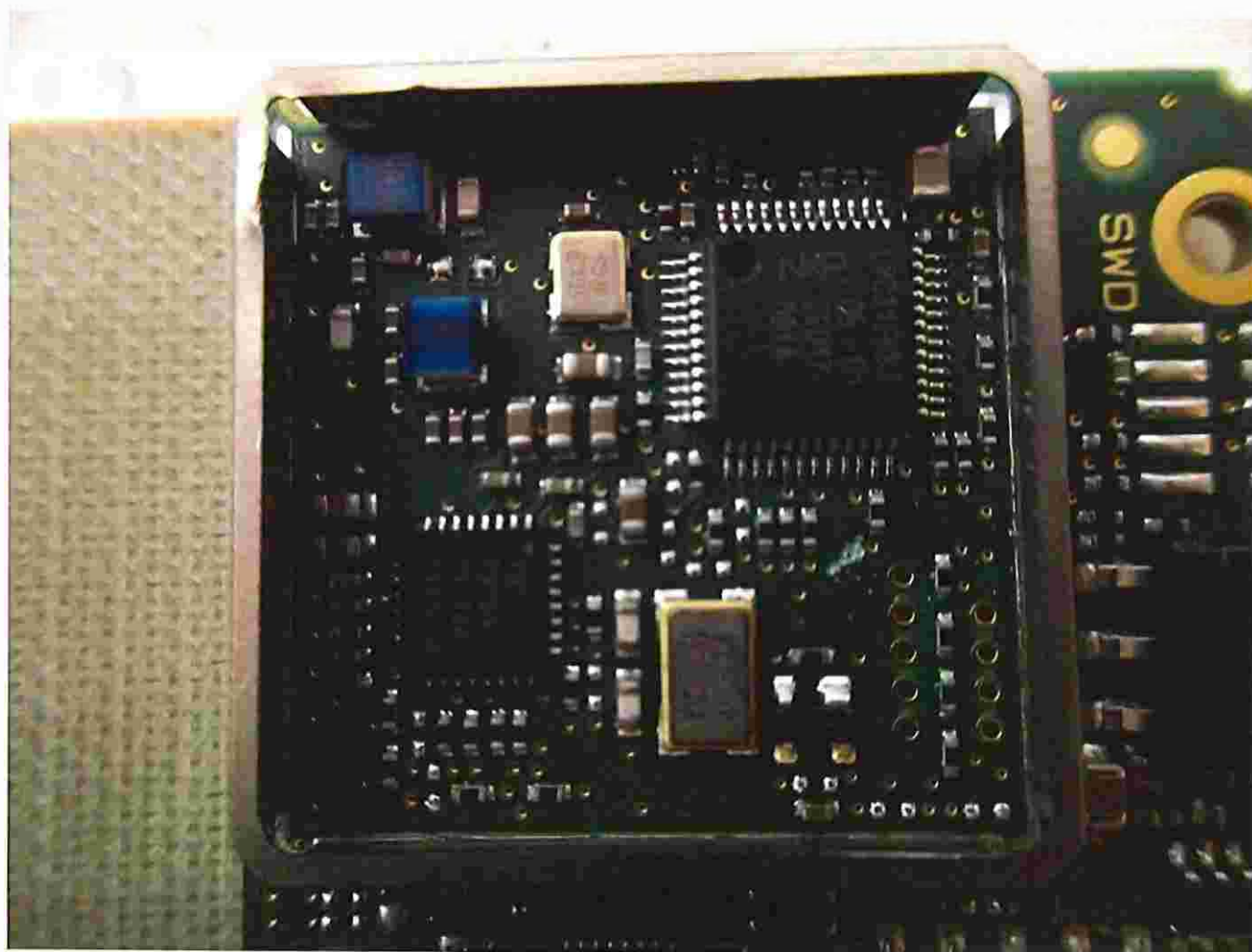
Department: FG

Testreport reference:
INE-AT/FG-18/161

Page: 3 of 8

Date: 17.09.2018

checked by: AI



Appendix 2 Photodocumentation

Description: Testsetup emissions below 30 MHz


Division:
Industry & Energy

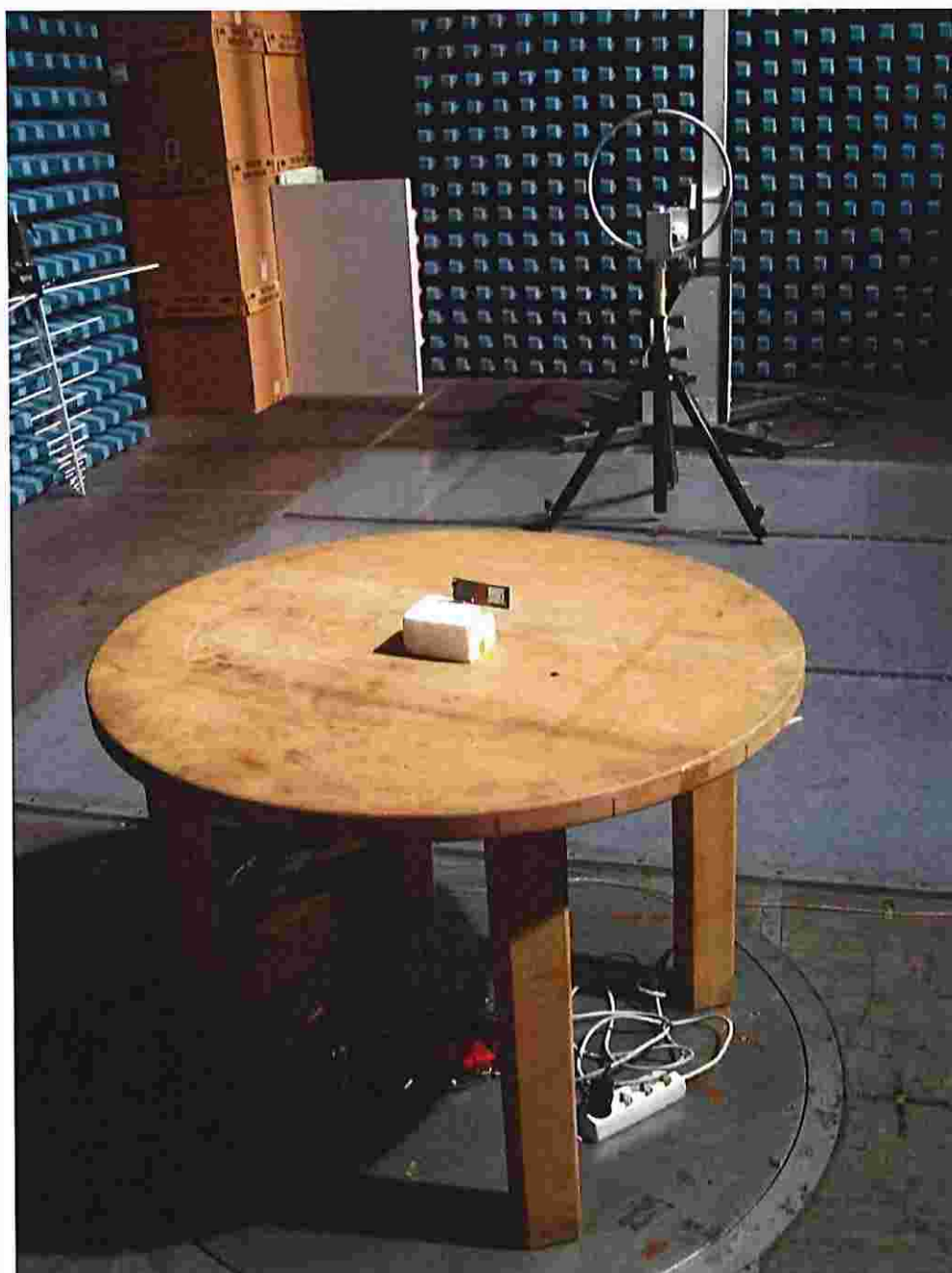
Department: FG

Test report reference:
INE-AT/FG-18/161

Page: 4 of 8

Date: 17.09.2018

checked by: 



Appendix 2 Photodocumentation

Description: Testsetup emissions 30 - 1000 MHz -
module unfolded

Division:
Industry & Energy

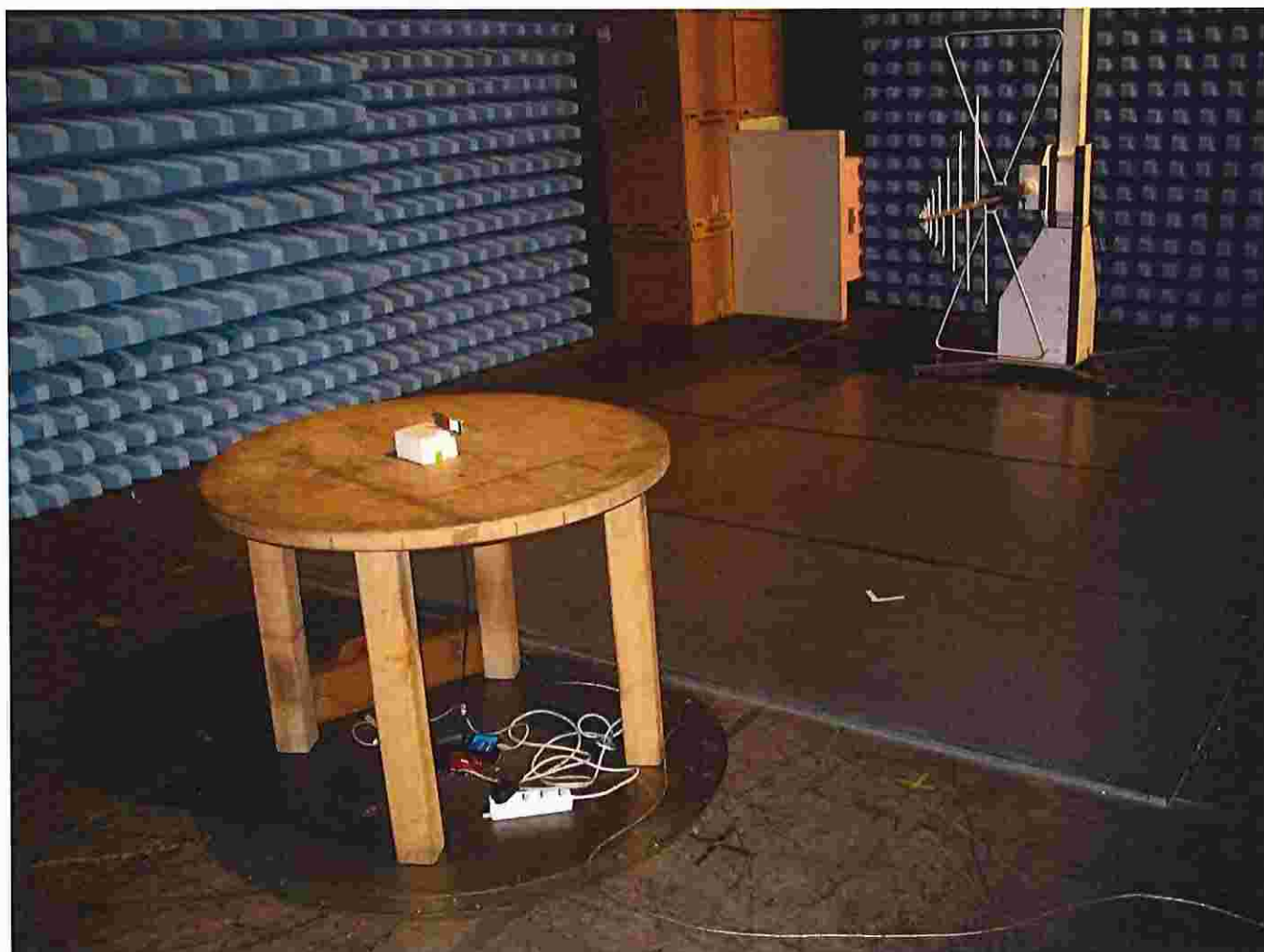
Department: FG

Testreport reference:
INE-AT/FG-18/161

Page: 5 of 8

Date: 17.09.2018

checked by: 



Appendix 2 Photodocumentation

Description: Testsetup emissions 30 - 1000 MHz -
module folded

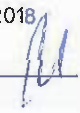
Division:
Industry & Energy

Department: FG

Testreport reference:
INE-AT/FG-18/161

Page: 6 of 8

Date: 17.09.2018

checked by: 



Appendix 2 Photodocumentation

Description: Testsetup – view #1


Division:
Industry & Energy

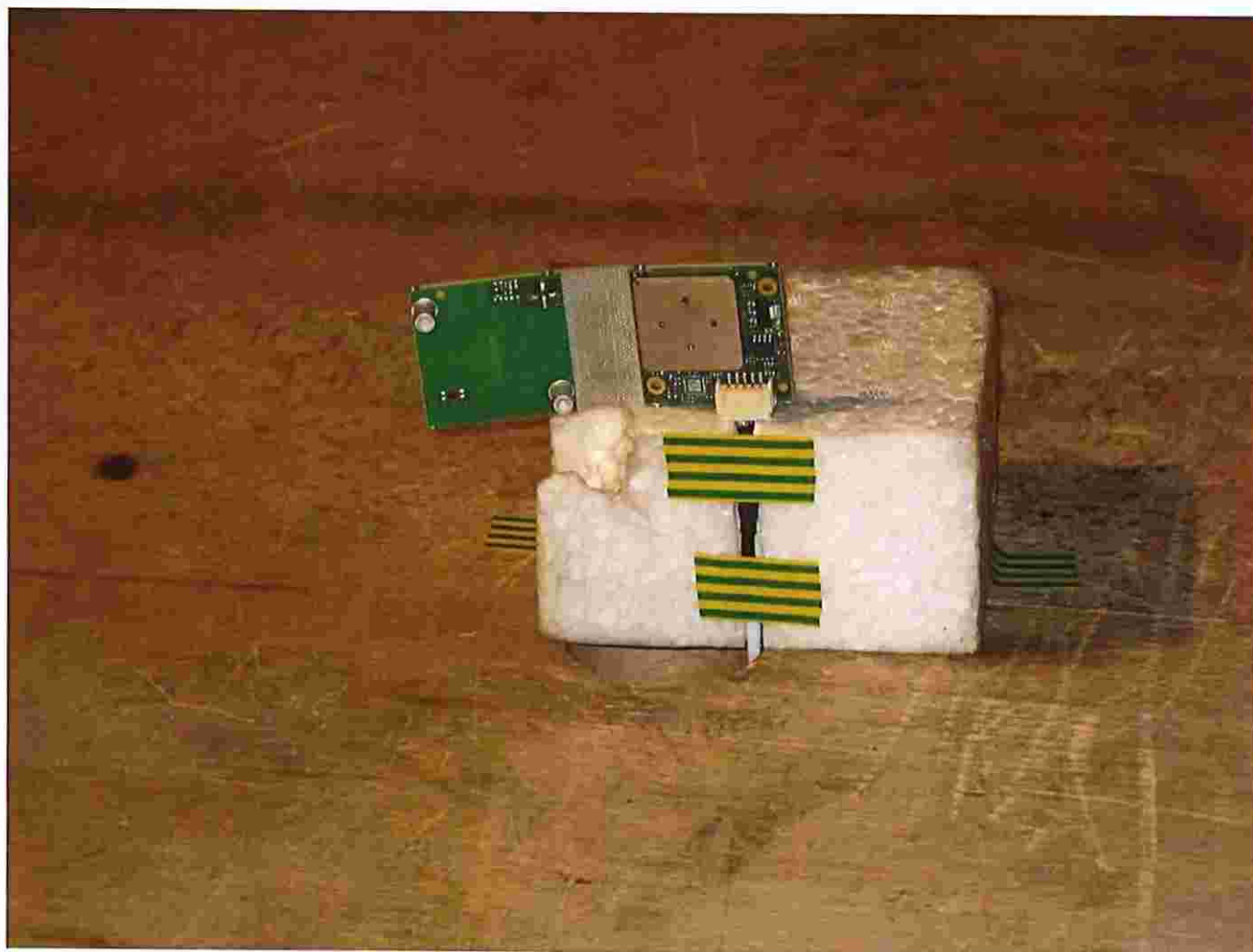
Department: FG

Testreport reference:
INE-AT/FG-18/161

Page: 7 of 8

Date: 17.09.2018

checked by: 



Appendix 2 Photodocumentation

Description: Testsetup – view #2

Division:
Industry & Energy

Department: FG

Testreport reference:
INE-AT/FG-18/161

Page: 8 of 8

Date: 17.09.2018

checked by: 