

Customer: LotusGrill GmbH
Rheingönheimer Weg 3-5
67117 Limburgerhof
Deutschland

Device: Holzkohletischgrill

Order number: 22000054

Modell: S, Classic, XL, XXL

Sample number: See page 6
Date of receipt: 19.04.2021

- ☒ Complete test
☐ Partial test
☐ Customized testing

Execution period: 19.04.2021 - 21.04.2021

The purpose of the test was to test the sample for electromagnetic compatibility (EMC):

Test specification according to:

- ☒ 2014/30/EU (EMV)
☐ 2014/53/EU (RED)
☐ Customized test plan

Applied standards:

EN 55014-1:2017+A11:2020
EN 55014-2:2015

Test result:

- ☒ **The tested sample conforms to the test specification**
☐ **The tested sample does not conform to the test specification**

Date of release: 21.04.2021

Niklas Ebert

Sven Eric Weber

Tested and written

Reviewed and approved

Copyright notice:

This test report including all appendices are protected under copyright law. Unauthorized publication or use is not permitted and is punishable by law. For the above-mentioned use outside the participants in the test, a written consent of Spezial EMV GmbH is required.

This document has been signed digitally only. Verification of the validity of this document is in the responsibility of the customer. Upon request, Spezial-EMV GmbH can confirm the validity of this document separately.

The test report contains **25** pages.

Managing director
Dr. -Ing Edgar v. Hinüber
Dipl. -Ing (FH) Sven Eric Weber

Commercial register
HRB 106686
Amtsgericht Saarbrücken

Contact:
Tel: +49 6894/9657 - 800
Fax +49 6894/9657 - 801
E-Mail: sales@spezial-emv.de

Seat of the company:
Spezial EMV GmbH
Im Reihersbruch 3
D-66386 St. Ingbert
Germany

Place of testing
Spezial EMV GmbH
Saarbrückerstraße 1
D-66706 Perl
Germany

Bank account
SWIFT/BIC: DEUTDE33
IBAN: DE86 5907 0070 0035 0132 00
UST-ID-Nr.: DE333161425
Steuer-Nr.: 040/118/01353

Table of contents

Summary of the tests.....	3
Conformity Statement.....	3
Test item features	4
Technical data	4
Pictures of the test sample.....	5
Test configuration.....	6
Abbreviations	6
Information on measurement uncertainties.....	7
Measurement uncertainty	7
Example for the interpretation of the measurement uncertainty.....	8
Immunity performance criteria	9
Specification of the evaluation criteria.....	9
Criterium A	9
Criterium B	9
Criterium C	10
Criterium FS.....	10
Evaluation of performance criteria	11
Description of the monitoring setup:.....	11
Photo documentation of the monitoring setup	11
Information provided by costumer.....	11
Additional documentation	12
Radiated Emission 30-1000 MHz	12
EN 61000-4-2 Immunity to Electrostatic discharge	19
EN 61000-4-3 Immunity to Radiated Immunity.....	21
Change directory	24

Summary of the tests

		Terminal	Standard*	Result
Emission	CISPR 16-2-3	Housing	EN 55014-1	☒ P ☐ F ☐ N/A ☐ N/T
Immunity	EN 61000-4-2	Housing	EN 55014-2	☒ P ☐ F ☐ N/A ☐ N/T
	EN 61000-4-3	Housing	EN 55014-2	☒ P ☐ F ☐ N/A ☐ N/T

Legend:

P	PASS	Meets the requirements
F	FAIL	Does not comply with the requirements
N/A	Not Applicable	Not applicable
N/T	Not tested	Not tested

*If no information is given on the applied standards, the dated requirements in the applied higher-level standards on page 1 apply.

Conformity Statement

Unless otherwise agreed with the customer, a conformity assessment is always carried out based on the applied standards. At the customer's request, the statement on the conformity of the product tested in this test report is carried out according to the criteria/requirements of the applied standards. Evaluation conditions deviating from these are documented separately in the respective chapters.

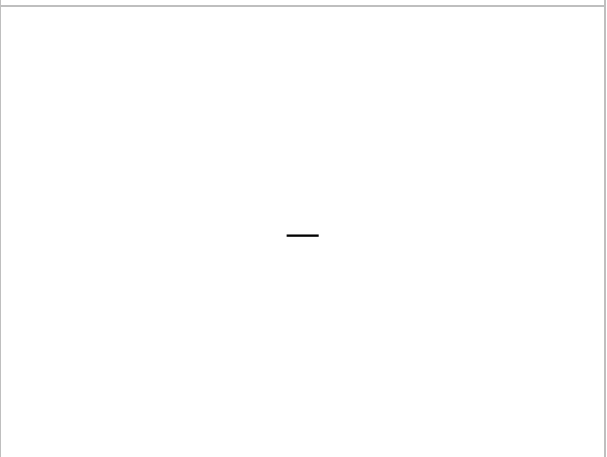
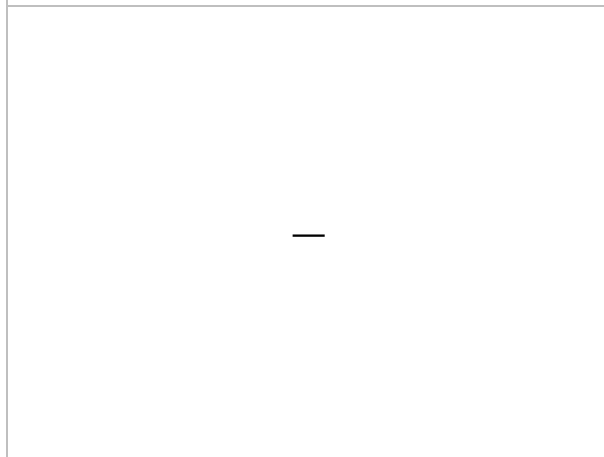
Test item features

Technical data

Condition of the test sample	Sample fully functional. No defects recognizable	
Manufacturer	Same as customer	
Origin of the test sample	Send by customer	
Modell	S, Classic, XL, XXL	
Identical models	—	
Serial number	—	
Test sample description	Holzkohletischgrill	
Software version	—	
Hardware version	—	
Number of phases	—	
Rated voltage	6 V	
Rated frequency	☒ DC / F=	
Rated current	—	
Rated power	—	
Internal frequencies	CPU:	—
	Radio:	—
Device category	Category 3 (according to chap. 4.4 EN 55014-2)	
Dimensions	—	
Weight	—	
Other information's	—	

All results mentioned in this report refer to the test sample mentioned in this report without exception.

Pictures of the test sample



Test configuration

Test sample:

No	Product type	Manufacturer	Model	Comments
1	Holzkohletischgrill	LotusGrill GmbH	S	Sample No. 512
2	Holzkohletischgrill	LotusGrill GmbH	Classic	Sample No. 475
3	Holzkohletischgrill	LotusGrill GmbH	XL	Sample No. 505
4	Holzkohletischgrill	LotusGrill GmbH	XXL	Sample No. 468

Auxiliary Equipment / Peripherals:

No	Product type	Manufacturer	Model	Comments
1	PowerSupply	Qualcomm	PSA15E-308Q	—

Input- / Output ports:

No	Name	Art	Cable length	Shielded	Comments
1	Housing	N/E	None	—	—
2	Power input	DC	<3m	No	—

AC AC power connection
 DC DC power connection
 N/E Not electric
 I/O Signal lines
 DATA Communication line

Operating modes:

No.	Name	Description
1	Operating	Lüfter Stufe Max
2	Operating	2* Lüfter Stufe Max (only model XXL)
3	Operating	2* Lüfter Stufe Max (only model XXL) with external Power Supply

Abbreviations

Description	
NCR	No calibration required
VBV	Verification before test

Information on measurement uncertainties

General statement on measurement uncertainty

The measurement uncertainties stated in this test report are true and accurate. The author notes that errors may occur within the calibration limits of the devices and equipment.

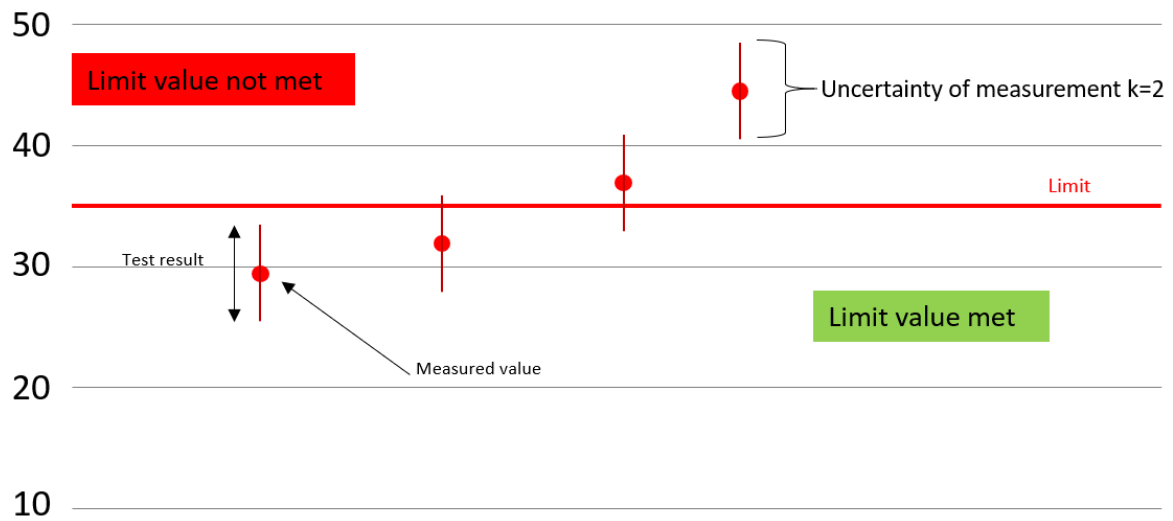
The measurement uncertainty of the measurement methods listed in this test report is not included in the compliance with the respective limit values / operating conditions. For emission tests, the requirements CISPR 16-4-2 / EN55016-4-2 (chapter 4.2) apply in their current form. For immunity tests, the specific dated requirements of the applied measurement and test methods apply.

The measurement uncertainties for all tests offered in the laboratory of Spezial EMV GmbH are listed below:

Measurement uncertainty

Test	U _{Lab}
<u>Conducted voltage emission LISN</u> 9 kHz – 150 kHz (CISPR Band A) 150 kHz – 30 MHz (CISPR Band B)	2.3 dB 3.3 dB
<u>Conducted voltage emissions voltage-probe</u> 9 kHz – 30 MHz (CISPR Band A/B)	2.0 dB
<u>Conducted voltage emissions with ISN</u> 150 kHz – 30 MHz (CISPR Band B)	3.3 dB
<u>Conducted current emissions with current-clamp</u> 150 kHz – 30 MHz (CISPR Band B)	2.2 dB
<u>Disturbance power emissions</u> 30 MHz – 300 MHz (CISPR Band C)	2.9 dB
<u>Conducted voltage emissions with CDNE</u> 30 MHz – 300 MHz (CISPR Band C)	2.6 dB
<u>Radiated magnetic emissions</u> 9 kHz – 30 MHz (CISPR Band A/B)	1.6 dB
<u>Radiated emission (3m distance)</u> 30 MHz – 1 GHz (CISPR Band C/D) 1 GHz – 6 GHz (CISPR Band E) 6 GHz – 18 GHz (CISPR Band E)	4.4 dB 5.0 dB 5.3 dB
<u>Immunity against electrostatic discharges</u> EN 61000-4-2	18.1%
<u>Immunity against electromagnetic fields</u> EN 61000-4-3 (20 MHz – 6000 MHz)	2.6 dB
<u>Immunity against fast transients</u> EN 61000-4-4	According Standard
<u>Immunity against Surges</u> EN 61000-4-5	According Standard
<u>Immunity against conducted electromagnetic fields</u> EN 61000-4-6 CDN (150 kHz – 230 MHz) EM-Clamp (150 kHz – 230 MHz) Current-Clamp (150kHz – 80 MHz)	1.5 dB 3.3 dB 3.3 dB

Example for the interpretation of the measurement uncertainty



Example calculation

Limit	Measured value	Margin	U_{LAB}	Test result
30 dB μ V	28.5 dB μ V	-1.5 dB	4.2 dB	24.3 — 32.7 dB μ V

Immunity performance criteria

Specification of the evaluation criteria

- ☒ Requirements of the specified standards
☐ Specified by the client

The criteria to be reached in each case can be found in the additional documentation at the end of the report.

- ☒ The evaluation of conformity was performed by Spezial EMV GmbH.
☐ The evaluation and compliance evaluation were performed by the client and included in this report.

Spezial EMV GmbH does not take any responsibility for these statements.

Criterion A

The DUT must continue to operate as intended during and after the test without operator intervention. No degradation of function or operating behaviour or no functional failure below a minimum operating quality described by the manufacturer may occur when the DUT is operated as intended. The (minimum) operating quality may be replaced by a permissible loss of operating quality. If the minimum operating quality or the permissible loss of operating quality is not specified by the manufacturer, either of these may be derived from the product description and documentation and from what the user can reasonably expect from the DUT when used as intended.

Parameter	
Blue LED	No variation is allowed

Criterion B

After the test, the DUT must continue to operate as intended without operator intervention. After the application of the test disturbance variable, no degradation of function or operating behaviour or no loss of function below an operating quality described by the manufacturer shall occur when the DUT is operated as intended. The operating quality may be replaced by a permissible loss of operating quality. During the test, however, a degradation of the operating behaviour is permitted. However, a change in the set operating mode or a loss of stored data after the test is not permitted. If the minimum operating quality (or permissible loss of operating quality) is not specified by the manufacturer, either may be derived from the product description and documentation, and from what the user can reasonably expect from the DUT when used as intended.

Parameter	
Blue LED	Variation during the test is allowed. Any Change needs to be restored after test without user interaction.

Criterion C

Temporary loss of function is permitted if the function is recoverable by itself or can be recovered by operation of the setting/operating elements by the user in accordance with the manufacturer's instructions. Functions and/or information (data) stored in non-temporary memories or protected by the supply from a background battery must not be lost.

Parameter	
—	—

Criterion FS

☒ Not applicable.

This performance criterion is only applicable for safety-related functions. It is relevant for any phenomenon. There is no differentiation required between continuous and transient electromagnetic phenomena. Equipment performing or intended to perform safety functions or parts of safety functions shall behave in a specified manner. The specified behaviour of a safety related system is intended to achieve or maintain safe conditions of the equipment and the related equipment under control. To achieve this, the behaviour of the equipment must be known under all considered conditions. In the safety requirements specification (SRS) of a system both the undisturbed function and the required behaviour in case of failure or occurrence of a fault is specified. The SRS in some cases also specifies time constraints. The required functional behaviour and the related time constraints may differ from the general specification of performance criteria A, B and C as defined in the generic standards. Where a device or system performs both safety and non-safety functions the requirements for functional safety apply in context with the safety functions only.

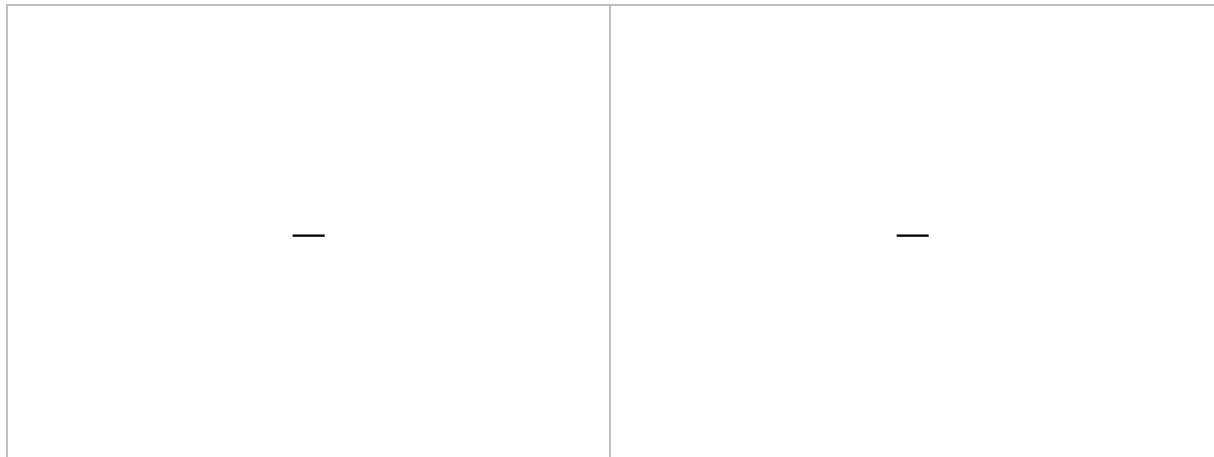
Evaluation of performance criteria

- ☒ Monitoring and compliance with the evaluation criteria were carried out by the customer

Description of the monitoring setup:

The blue LEDs were monitored visually by the tester.

Photo documentation of the monitoring setup:



Information provided by customer

None

Additional documentation

Radiated Emission 30-1000 MHz

Execution date	19.04.2021	
Result	PASS	
Operator	Ebert	
Applied Standard	EN 55014-1	
Applied Method	CISPR 16-2-3	
Operation Mode	1; 2	
EUT	S, Classic, XL, XXL	
Limit	Frequency [MHz]	Limit QP [dB μ V/m]
	30 - 230	40
	230 - 1000	47
Temperature (°C)	23	
Air pressure (mbar)	988	
Humidity (% rH)	32	
Remark	—	

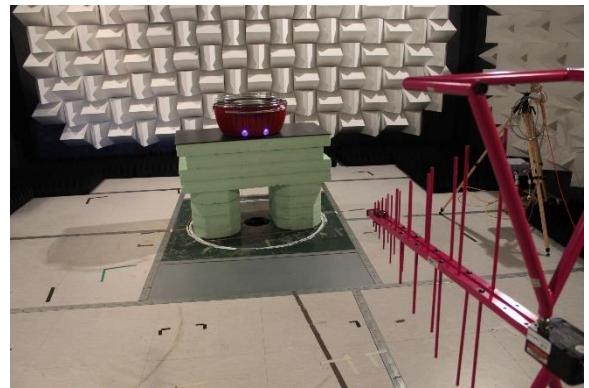
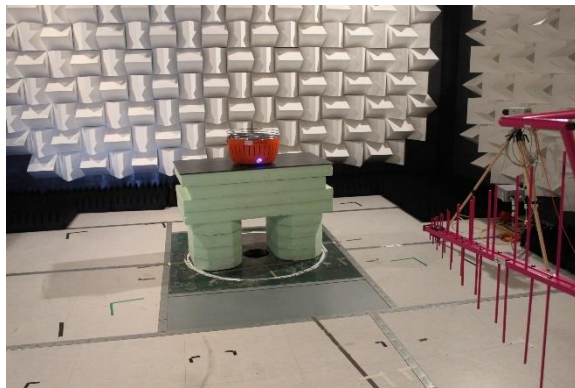
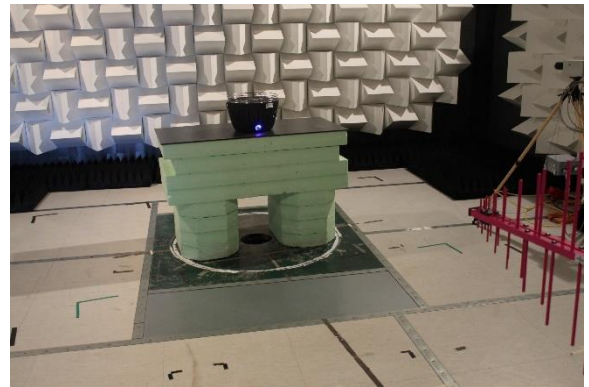
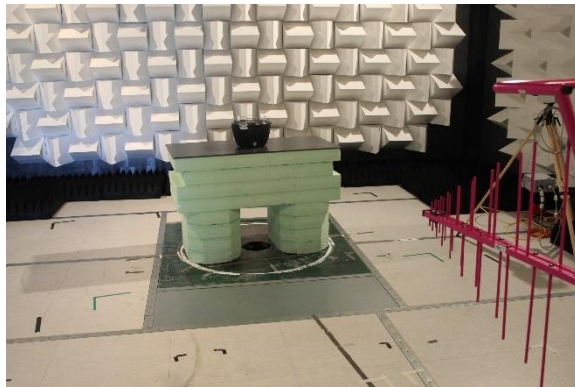
Documentation of the test setup:

Measurements were made in a 3-meter semi-anechoic chamber that complies to CISPR 16. Floor-standing equipment was placed on a non-conducting support (0.1 ± 0.01) m over the reference ground plane. Tabletop equipment was placed on a table at a height of (0.8 ± 0.05) m above the reference ground plane. Preliminary measurements were performed with a receiver employing a peak detector at an antenna to EUT distance of 3m. The EUT was rotated in 45° steps for frequencies below 1 GHz and 22.5° steps for frequencies over 1GHz about its azimuth to determine the position of the highest emissions. The measurement antenna was adjusted between 1 m and 4 m above ground to find the maximum signal strength. These measurements were done in both horizontal and vertical polarizations. After this, final measurements with a receiver employing a quasi-peak detector for frequencies below 1 GHz and with a peak and an average detector for frequencies above 1 GHz were performed by rotating the EUT by 360° and adjusting the receive antenna height from 1 m to 4 m. All frequencies were investigated in both horizontal and vertical antenna polarity. For frequencies over 1 GHz floor absorbers were used between antenna and EUT to fulfil the SVSWR requirements.

Used test equipment:

Type	Manufacturer	Modell	ID	Last calibration	Next calibration
Antenna	Teseq	CBL 6141B	0014	20.01.2021	20.01.2024
Receiver	Rohde & Schwarz	ESU 26	0081	13.07.2020	13.07.2021
Software	Rohde & Schwarz	EMC 32 (10.60.20)	None	NCR	NCR

Picture of test setup



Sample No. 512**EMI Auto Test Template: EN 55014-1 Feldstärke 30-1000MHz CBL 6141B**

Operating mode: 1
 Hardware Setup: Electric Field 30M-18GHz-CBL-BBHA
 Measurement Type: Open-Area-Test-Site (SAC/FAR)
 Frequency Range: 30 MHz - 1 GHz
 Graphics Level Range: 0 dB μ V/m - 80 dB μ V/m

Preview Measurements:

Scan Test Template: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	PK+ ; AVG	120 kHz	0,02 s	0 dB

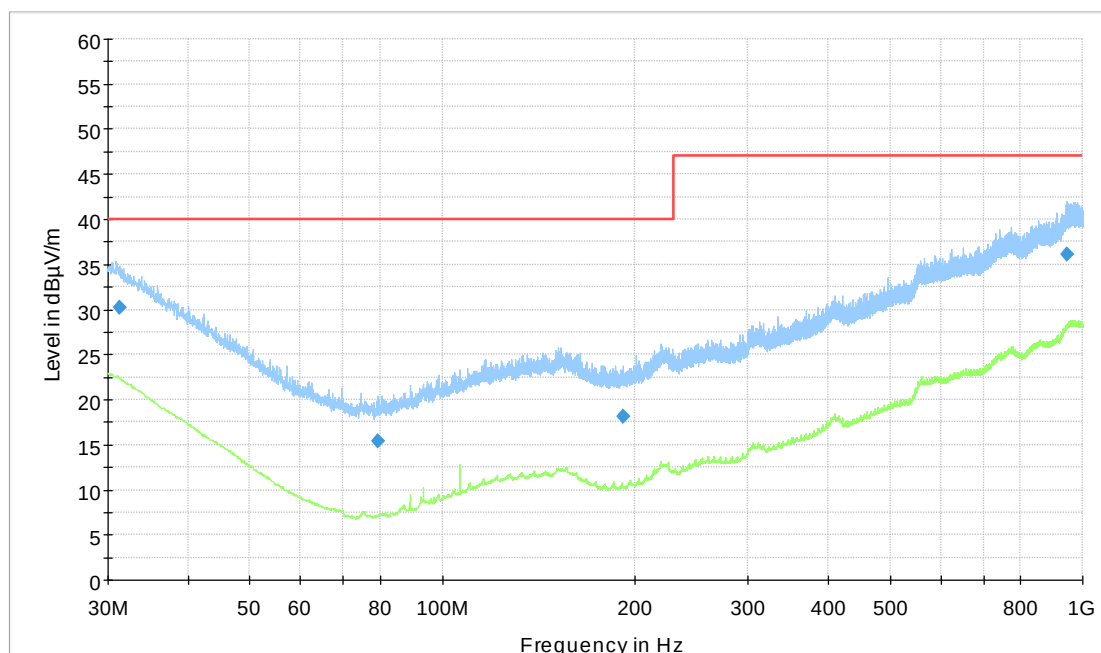
Adjustment:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Final Measurements:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Final 30-1000MHz QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	QPK	120 kHz	5 s	0 dB



— Preview Result 2-AVG
 — EN55014-1QP Feldstärke 30-1000MHz
 — Preview Result 1-PK+
 ◆ Final_Result QPK

Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.260000	30.29	40.00	9.71	5000.0	120.000	250.0	H	221.0	23.6
79.380000	15.32	40.00	24.68	5000.0	120.000	287.0	V	298.0	8.8
191.880000	18.16	40.00	21.84	5000.0	120.000	400.0	V	260.0	11.5
947.160000	36.06	47.00	10.94	5000.0	120.000	380.0	H	83.0	26.9

Sample No. 505**EMI Auto Test Template: EN 55014-1 Feldstärke 30-1000MHz CBL 6141B**

Operating mode: 1
 Hardware Setup: Electric Field 30M-18GHz-CBL-BBHA
 Measurement Type: Open-Area-Test-Site (SAC/FAR)
 Frequency Range: 30 MHz - 1 GHz
 Graphics Level Range: 0 dB μ V/m - 80 dB μ V/m

Preview Measurements:

Scan Test Template: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	PK+ ; AVG	120 kHz	0,02 s	0 dB

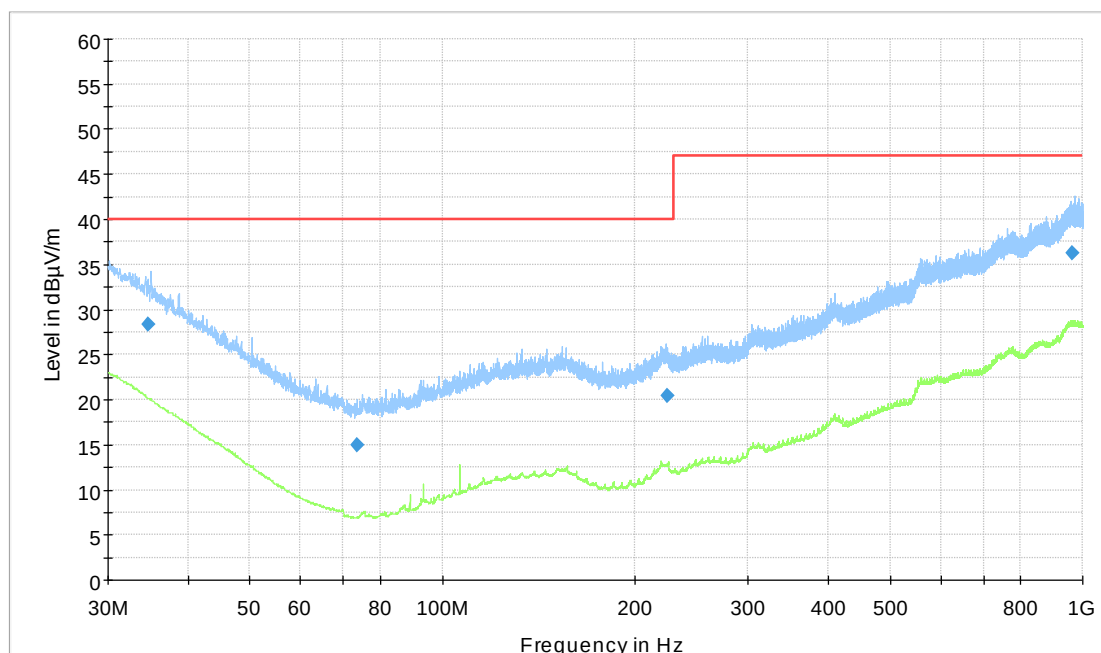
Adjustment:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Final Measurements:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Final 30-1000MHz QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	QPK	120 kHz	5 s	0 dB



— Preview Result 2-AVG
 — EN55014-1QP Feldstärke 30-1000MHz
 — Preview Result 1-PK+
 ◆ Final_Result QPK

Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.620000	28.31	40.00	11.69	5000.0	120.000	250.0	H	20.0	21.7
73.620000	14.94	40.00	25.06	5000.0	120.000	150.0	H	6.0	8.5
224.400000	20.44	40.00	19.56	5000.0	120.000	350.0	H	244.0	13.7
962.400000	36.28	47.00	10.72	5000.0	120.000	400.0	H	214.0	27.0

Sample No. 475**EMI Auto Test Template: EN 55014-1 Feldstärke 30-1000MHz CBL 6141B**

Operating mode: 1
 Hardware Setup: Electric Field 30M-18GHz-CBL-BBHA
 Measurement Type: Open-Area-Test-Site (SAC/FAR)
 Frequency Range: 30 MHz - 1 GHz
 Graphics Level Range: 0 dB μ V/m - 80 dB μ V/m

Preview Measurements:

Scan Test Template: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	PK+ ; AVG	120 kHz	0,02 s	0 dB

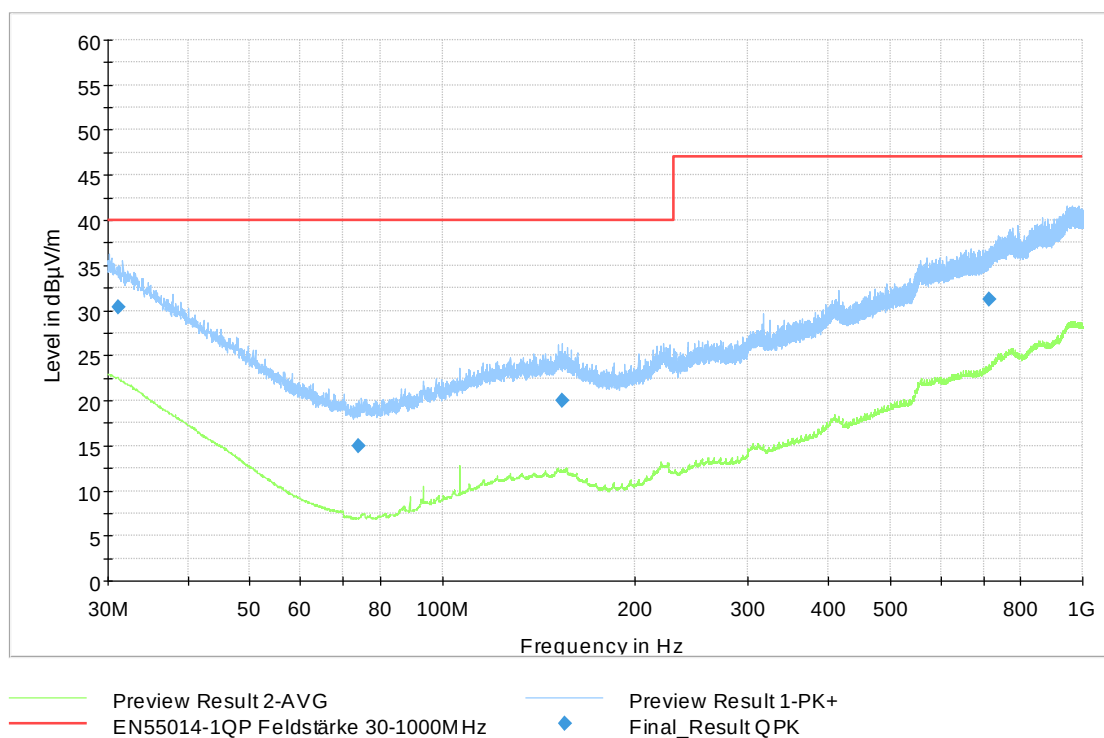
Adjustment:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Final Measurements:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Final 30-1000MHz QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	QPK	120 kHz	5 s	0 dB

**Final_Result**

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.200000	30.35	40.00	9.65	5000.0	120.000	110.0	H	15.0	23.7
74.040000	14.94	40.00	25.06	5000.0	120.000	100.0	H	315.0	8.5
153.690000	20.05	40.00	19.95	5000.0	120.000	184.0	V	-10.0	13.3
714.630000	31.22	47.00	15.78	5000.0	120.000	334.0	V	180.0	23.1

Sample No. 468**EMI Auto Test Template: EN 55014-1 Feldstärke 30-1000MHz CBL 6141B**

Operating mode: 2
 Hardware Setup: Electric Field 30M-18GHz-CBL-BBHA
 Measurement Type: Open-Area-Test-Site (SAC/FAR)
 Frequency Range: 30 MHz - 1 GHz
 Graphics Level Range: 0 dB μ V/m - 80 dB μ V/m

Preview Measurements:

Scan Test Template: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	PK+ ; AVG	120 kHz	0,02 s	0 dB

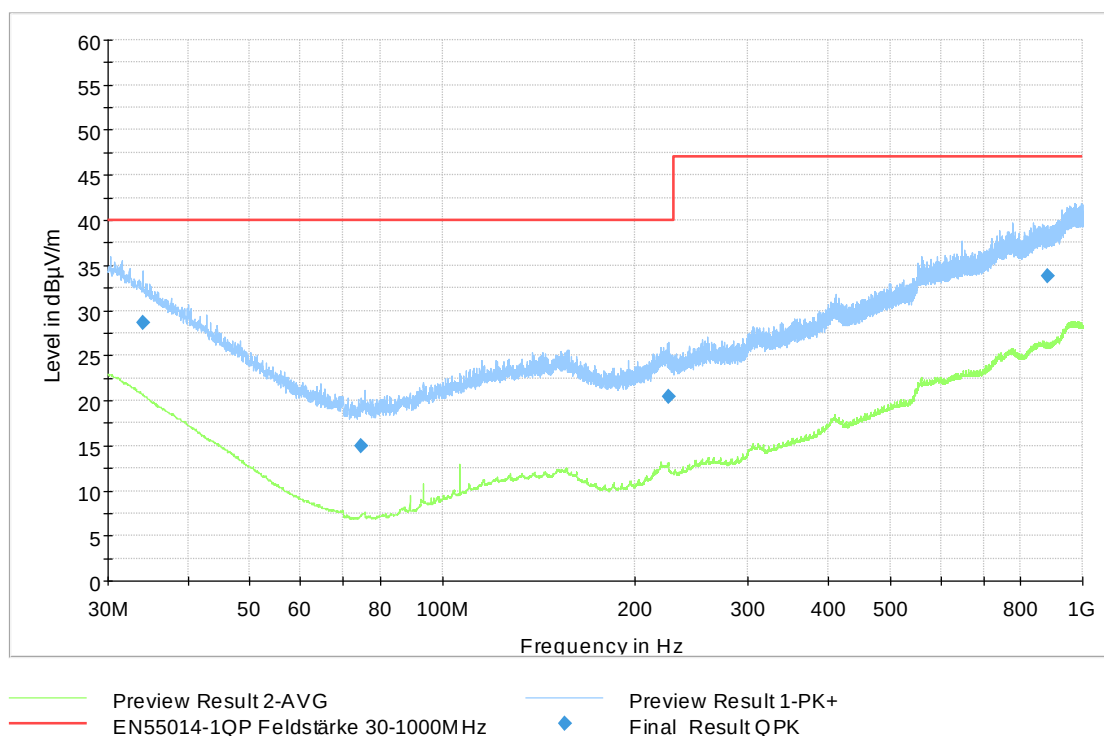
Adjustment:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Final Measurements:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Final 30-1000MHz QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	QPK	120 kHz	5 s	0 dB

**Final_Result**

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.020000	28.68	40.00	11.32	5000.0	120.000	350.0	H	178.0	22.0
74.520000	14.97	40.00	25.03	5000.0	120.000	116.0	H	172.0	8.4
225.450000	20.37	40.00	19.63	5000.0	120.000	156.0	V	225.0	13.6
881.610000	33.79	47.00	13.21	5000.0	120.000	133.0	H	84.0	25.1

Sample No. 468**EMI Auto Test Template: EN 55014-1 Feldstärke 30-1000MHz CBL 6141B**

Operating mode: 3
 Hardware Setup: Electric Field 30M-18GHz-CBL-BBHA
 Measurement Type: Open-Area-Test-Site (SAC/FAR)
 Frequency Range: 30 MHz - 1 GHz
 Graphics Level Range: 0 dB μ V/m - 80 dB μ V/m

Preview Measurements:

Scan Test Template: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	PK+ ; AVG	120 kHz	0,02 s	0 dB

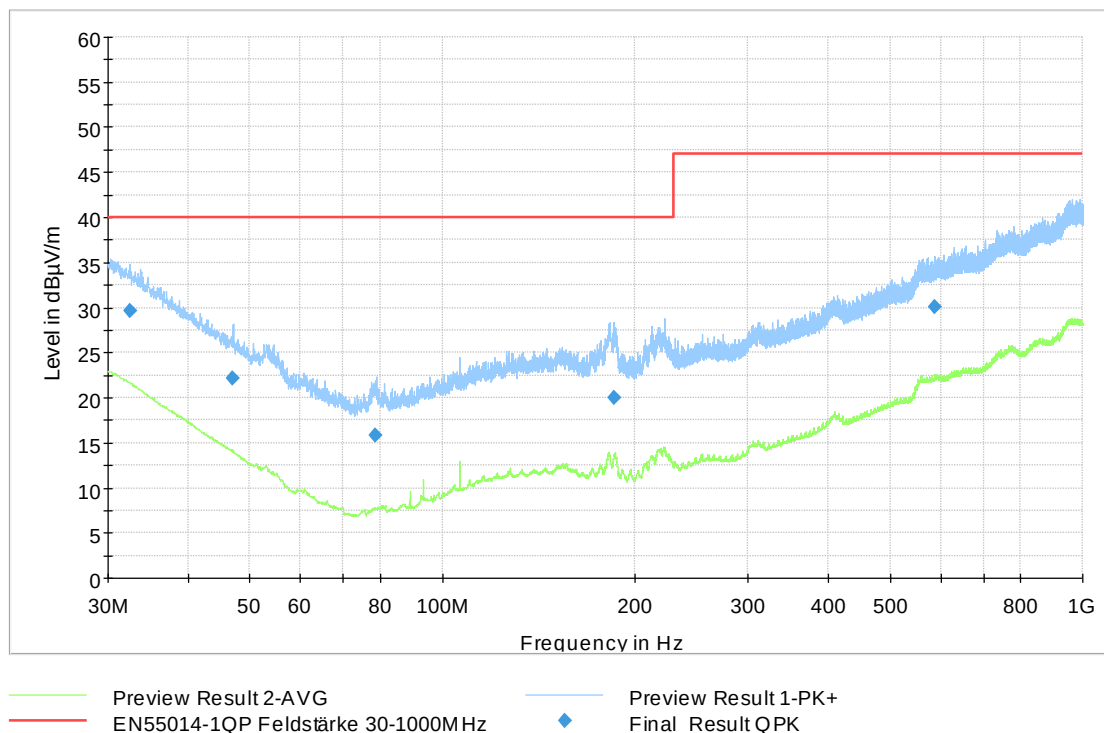
Adjustment:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Prescan 30-1000MHz PK AV

Final Measurements:

Template for Single Meas.: CISPR 16-2-3 Feldstärke CBL 6141B Final 30-1000MHz QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
Receiver: [ESU 26] 30 MHz - 1 GHz	30 kHz	QPK	120 kHz	5 s	0 dB

**Final Result**

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.490000	29.60	40.00	10.40	5000.0	120.000	212.0	H	153.0	22.9
47.070000	22.18	40.00	17.82	5000.0	120.000	187.0	H	288.0	15.7
78.630000	15.81	40.00	24.19	5000.0	120.000	111.0	V	135.0	8.7
185.160000	20.05	40.00	19.95	5000.0	120.000	100.0	V	1.0	11.6
586.440000	30.01	47.00	16.99	5000.0	120.000	396.0	H	174.0	21.7

EN 61000-4-2 Immunity to Electrostatic discharge

Execution date	21.04.2021	
Result	PASS	
Operator	Ebert	
Applied Standard	EN 55014-2	
Applied Method	EN 61000-4-2	
Required criterion	B	
Operation Mode	2	
EUT	XXL	
Requirements	Contact discharge	$\pm 4 \text{ kV}$
	Air discharge	$\pm 8 \text{ kV}$
	Number of discharges	10
Tested (on costumer's request)	See Requirements	
Temperature ($^{\circ}\text{C}$)	22	
Air pressure (mbar)	987	
Humidity (% rH)	31	
Remark	None	

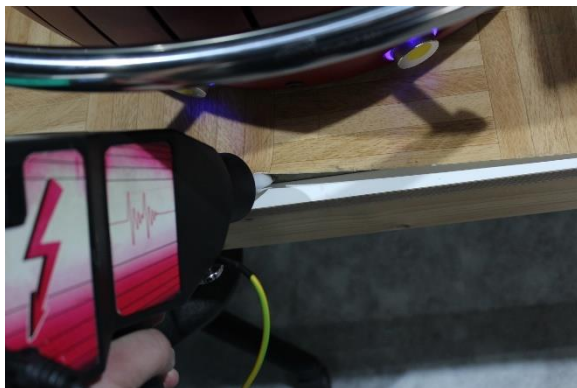
Documentation of the test setup:

Tabletop equipment was placed on a table at a height of $(0.8 \pm 0.05) \text{ m}$ above the reference ground plane. A horizontal coupling plane (HCP), $1.6 \times 0.8 \text{ m}$, was placed on the table. The EUT and the cables are isolated from the coupling plane by an insulating support 0.5 mm thick. Floor-standing equipment was placed on a non-conducting support $(0.1 \pm 0.01) \text{ m}$ above the reference ground plane. The vertical coupling plane (VCP) of dimensions $0.5 \text{ m} \times 0.5 \text{ m}$ was placed parallel to, and positioned at a distance of 0.1 m from, the EUT.

Used test equipment:

Type	Manufacturer	Modell	ID	Last calibration	Next calibration
ESD-Gun	Schloeder GmbH	SESD 3000	0005	14.01.2021	14.01.2022

Picture of test setup



Test results:**Contact discharge**

No.	Point	Polarity	Level	Result	Comment
1	VCP	positive	4 kV	PASS	None
2		negative	4 kV	PASS	None
3	HCP	positive	4 kV	PASS	None
4		negative	4 kV	PASS	None
5	Housing Points (green dots)	positive	4 kV	PASS	None
6		negative	4 kV	PASS	None

Air discharge

No.	Point	Polarity	Level	Result	Comment
1	Housing Points (yellow dots)	positive	8 kV	PASS	None
2		negative	8 kV	PASS	blue LED turns off shortly

Discharge points:

—

EN 61000-4-3 Immunity to Radiated Immunity

Execution date	20.04.2021			
Result	PASS			
Operator	Ebert			
Applied Standard	EN 55014-2			
Applied Method	EN 61000-4-3			
Required criterion	A			
Operation Mode	2			
EUT	XXL			
Requirements	80 MHz – 1000 MHz	3 V/m (AM 1kHz 80%)		
Tested (on costumer's request)	See Requirements			
Tested side of EUT	☒ Front	☐ Left	☐ Right	☐ Back
Temperature (°C)	22			
Air pressure (mbar)	33			
Humidity (% rH)	989			
Remark	None			

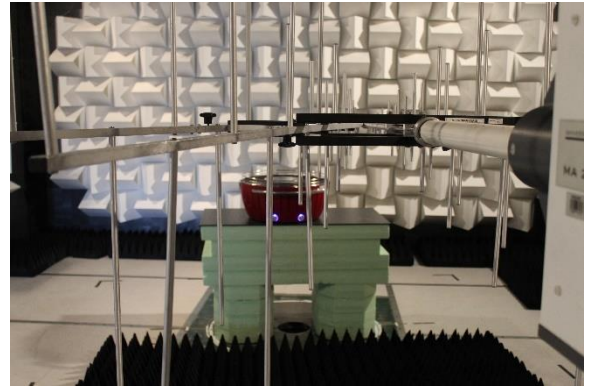
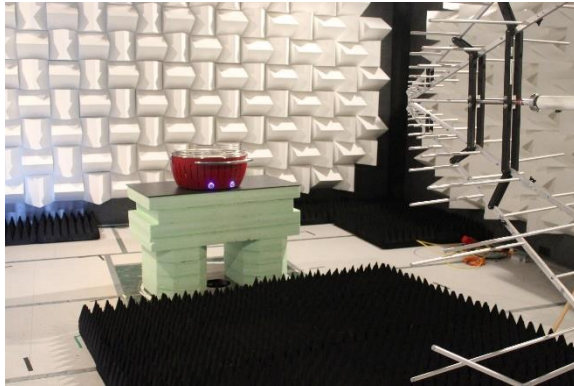
Documentation of the test setup:

Tabletop equipment was placed on a table at a height of (0.8 ± 0.05) m above the reference ground plane. Floor-standing equipment was placed on a non-conducting support (0.1 ± 0.01) m over the reference ground plane. Alternatively, floor-standing equipment that was not too big or heavy was placed on a table at a height of (0.8 ± 0.05) m above the reference ground plane. Each face of the EUT and the attached cables were exposed to the electromagnetic field produced by a transmitting antenna in predefined distance (1 – 3 m). Excess length of the interconnecting cables was arranged according the standard and customer requirements. If necessary, the cables were bundled midway. The bundles were around 30 to 40 cm long. Cables that leave the test volume were decoupled if necessary. The EUT operation was monitored during the test. The indicated field was pre-calibrated prior to placement of the system under test

Used test equipment:

Type	Manufacturer	Modell	ID	Last calibration	Next calibration
Signal generator	Rhode & Schwarz	SMR 20	0082	31.03.2021	31.03.2024
Power Head	Rhode & Schwarz	NRP-Z91	0042	04.02.2021	04.02.2023
Power Head	Rhode & Schwarz	NRP-Z91	0043	04.02.2021	04.02.2023
Amplifier	Amplifier Research	200W1000M7A	0075	NCR	NCR
Coupler	Amplifier Research	DC6280	0085	NCR	NCR
Antenna	Schwarzbeck	STLP 9128 D	0088	NCR	NCR
Software	Rhode & Schwarz	EMC 32 (10.60.20)	None	NCR	NCR

Pictures of test setup



Test result:

Test-Side	Frequency [MHz]	Polarisation [V/H]	Dwell Time [s]	Result
Front		V	2	PASS
		H	2	PASS
Back		V	—	N/T
		H	—	N/T
Left		V	—	N/T
		H	—	N/T
Right		V	—	N/T
		H	—	N/T
Remark: —				

Change directory

Test report number	Author	Date	Changes
SE220000054-001	Niklas Ebert	22.04.2021	First version
SE220000054-002	Niklas Ebert	22.04.2021	Name of device updated

The latest version of the report replaces all previous versions.

End of report