









TEST REPORT



BNetzA-CAB-02/21-102

Test report no.: 1-6611_23-01-12-A

Testing laboratory

cetecom advanced GmbH

Untertuerkheimer Strasse 6 – 10 66117 Saarbruecken / Germany Phone: + 49 681 5 98 - 0 Fax: + 49 681 5 98 - 9075

Internet: https://cetecomadvanced.com
e-mail: mail@cetecomadvanced.com

Accredited Testing Laboratory:

The testing laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025 (2018-03) by the Deutsche Akkreditierungsstelle GmbH (DAkkS)

The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate with the registration number:

D-PL-12047-01-00.

Radio Labs

ISED Testing Laboratory Recognized Listing Number: DE0001

FCC designation number: DE0002

Applicant

WSAUD A/S

Nymøllevej 6

DK-3540 Lynge / DENMARK Phone: +45 4435 5600

Contact: Carsten Quaade Jensen e-mail: <u>carsten.jensen@wsa.com</u>

Manufacturer

WSAUD A/S

Nymøllevej 6

DK-3540 Lynge / DENMARK

Test standard/s

FCC - Title 47 CFR Part 15 FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio

frequency devices

RSS - 210 Issue 10 incl. Spectrum Management and Telecommunications Radio Standards

Amendment Specification - Licence-Exempt Radio Apparatus: Category I Equipment

For further applied test standards please refer to section 3 of this test report.

Test Item

Kind of test item: BTE Hearing Aid with Bluetooth LE

Model name: MRRLD

FCC ID: 2AXDT-RFM014
ISED certification number: 26428-RFM014

Frequency: 10.6 MHz
Technology tested: Proprietary

Antenna: Integrated antenna

Power supply: 3.2 V to 4.2 V DC by battery

Temperature range: 0°C to +50°C

This test report is electronically signed and valid without handwritten signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Test report authorized:	Test performed:		
	p.o.		
Christoph Schneider	Tobias Wittenmeier		
Lab Manager	Testing Manager		

Radio Labs



1 Table of contents

1	Table	of contents	2
2	Gener	al information	3
	2.1 2.2 2.3	Notes and disclaimerApplication details Test laboratories sub-contracted	3
3	Test s	tandard/s, references and accreditations	4
4	Repor	ting statements of conformity – decision rule	5
5	Test e	nvironment	б
6	Test it	tem	б
	6.1 6.2	General description	
7	Descr	iption of the test setup	7
	7.1 7.2 7.3	Shielded semi anechoic chamber	10
8	Seque	ence of testing	12
	8.1 8.2	Sequence of testing radiated spurious 9 kHz to 30 MHz	
9	Meas	urement uncertainty	14
10	Sun	nmary of measurement results	15
11	Add	litional comments	15
12	Mea	asurement results	16
	12.1 12.2 12.3	Occupied bandwidthField strength of the fundamentalField strength of the harmonics and spurious	18
13	Obs	servations	22
14	Glo	ssary	23
15	Doo	ument history	24



2 General information

2.1 Notes and disclaimer

The test results of this test report relate exclusively to the test item specified in this test report. cetecom advanced GmbH does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of cetecom advanced GmbH.

The testing service provided by cetecom advanced GmbH has been rendered under the current "General Terms and Conditions for cetecom advanced GmbH".

cetecom advanced GmbH will not be liable for any loss or damage resulting from false, inaccurate, inappropriate or incomplete product information provided by the customer.

Under no circumstances does the cetecom advanced GmbH test report include any endorsement or warranty regarding the functionality, quality or performance of any other product or service provided.

Under no circumstances does the cetecom advanced GmbH test report include or imply any product or service warranties from cetecom advanced GmbH, including, without limitation, any implied warranties of merchantability, fitness for purpose, or non-infringement, all of which are expressly disclaimed by cetecom advanced GmbH.

All rights and remedies regarding vendor's products and services for which cetecom advanced GmbH has prepared this test report shall be provided by the party offering such products or services and not by cetecom advanced GmbH.

In no case this test report can be considered as a Letter of Approval.

This test report is electronically signed and valid without handwritten signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

This test report replaces the test report with the number 1-6611_23-01-12 and dated 2023-11-09.

2.2 Application details

 Date of receipt of order:
 2023-09-04

 Date of receipt of test item:
 2023-09-12

 Start of test:*
 2023-09-12

 End of test:*
 2023-09-15

Person(s) present during the test: -/-

2.3 Test laboratories sub-contracted

None

© cetecom advanced GmbH Page 3 of 24

^{*}Date of each measurement, if not shown in the plot, can be requested. Dates are stored in the measurement software.



3 Test standard/s, references and accreditations

Test standard	Date	Description
FCC - Title 47 CFR Part 15		FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices
RSS - 210 Issue 10 incl. Amendment	April 2020	Spectrum Management and Telecommunications Radio Standards Specification - Licence-Exempt Radio Apparatus: Category I Equipment
RSS - Gen Issue 5 incl. Amendment 1 & 2	February 2021	Spectrum Management and Telecommunications Radio Standards Specification - General Requirements for Compliance of Radio Apparatus
Guidance	Version	Description
ANSI C63.4-2014 ANSI C63.10-2013	-/-	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

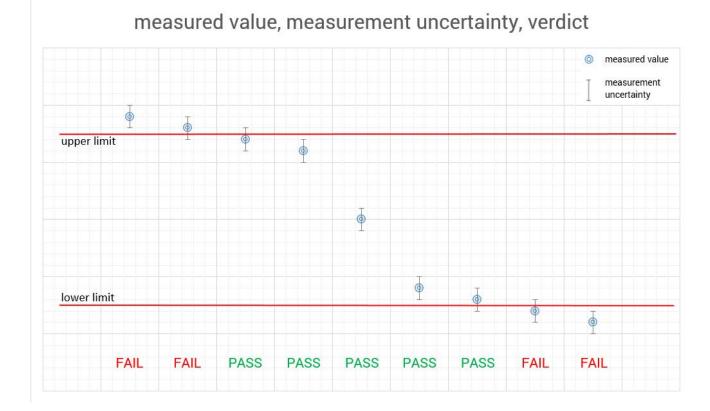
© cetecom advanced GmbH Page 4 of 24



4 Reporting statements of conformity – decision rule

Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed in chapter 3.

The measurement uncertainty is mentioned in this test report, see chapter 9, but is not taken into account neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong."



© cetecom advanced GmbH Page 5 of 24



5 Test environment

Temperature :		T_{nom} T_{max}	+22 °C during room temperature tests +50 °C during high temperature tests
		T_{min}	0 °C during low temperature tests
Relative humidity content	:		55 %
Barometric pressure	:		1021 hpa
		V_{nom}	3.8 V DC by battery
Power supply	:	V_{max}	4.2 V
		V_{min}	3.2 V

6 Test item

6.1 General description

Kind of test item :	BTE Hearing Aid with Bluetooth LE
Model name :	MRRLD
HMN :	-/-
PMN :	MRRLD
HVIN :	RFM014
FVIN :	-/-
S/N serial number :	7218
Hardware status :	DR3
Software status :	NA
Firmware status :	eSW 6.0.336
Frequency band :	1.705 MHz – 30.0 MHz
Type of radio transmission:	DSSS
Use of frequency spectrum :	0333
Type of modulation :	FSK
Number of channels :	1
Antenna :	Integrated antenna
Power supply :	3.2 V to 4.2 V DC by battery
Temperature range :	0°C to +50°C

6.2 Additional information

The content of the following annexes is defined in the QA. It may be that not all of the listed annexes are necessary for this report, thus some values in between may be missing.

Test setup and EUT photos are included in test report: 1-6611_23-01-01_AnnexA

1-6611_23-01-01_AnnexB 1-6611_23-01-01_AnnexD

© cetecom advanced GmbH Page 6 of 24



7 Description of the test setup

Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Weekly chamber inspections and range calibrations are performed. Where possible, RF generating and signaling equipment as well as measuring receivers and analyzers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Lab/Item).

Each block diagram listed can contain several test setup configurations. All devices belonging to a test setup are identified with the same letter syntax. For example: Column Setup and all devices with an A.

Agenda: Kind of Calibration

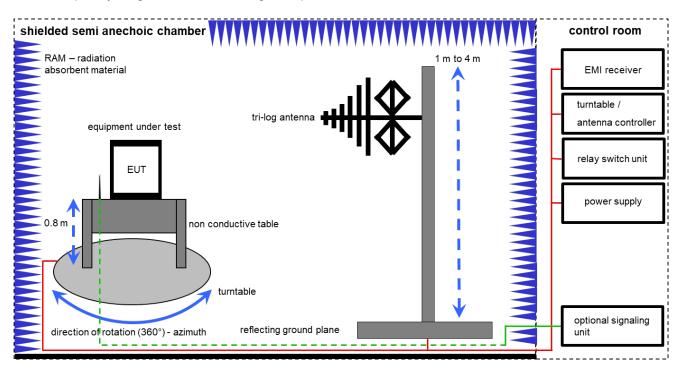
k	calibration / calibrated	EK	limited calibration
ne	not required (k, ev, izw, zw not required)	ZW	cyclical maintenance (external cyclical maintenance)
ev	periodic self verification	izw	internal cyclical maintenance
Ve	long-term stability recognized	g	blocked for accredited testing
vlkl!	Attention: extended calibration interval		
NK!	Attention: not calibrated	*)	next calibration ordered / currently in progress

© cetecom advanced GmbH Page 7 of 24



7.1 Shielded semi anechoic chamber

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 30 MHz to 1 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber. The receiving antennas are conform to specifications ANSI C63. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test setups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received. The wanted and unwanted emissions are received by spectrum analyzers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63.



Measurement distance: tri-log antenna 10 meter

EMC32 software version: 10.59.00

FS = UR + CL + AF

(FS-field strength; UR-voltage at the receiver; CL-loss of the cable; AF-antenna factor)

Example calculation:

FS $[dB\mu V/m] = 12.35 [dB\mu V/m] + 1.90 [dB] + 16.80 [dB/m] = 31.05 [dB\mu V/m] (35.69 <math>\mu V/m$)

© cetecom advanced GmbH Page 8 of 24



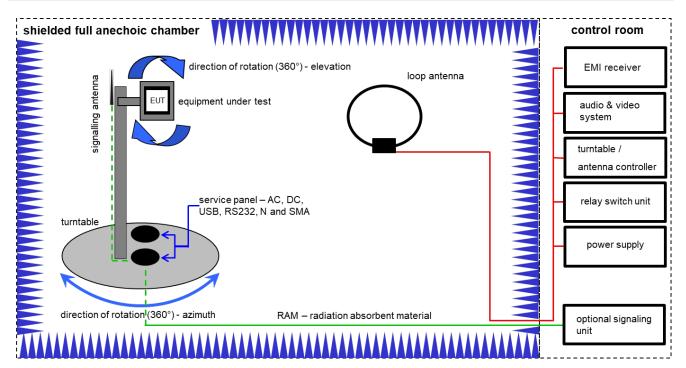
Equipment table:

No.	Setup	Equipment	Туре	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	Α	Switch-Unit	3488A	HP	2719A14505	300000368	ev	-/-	-/-
2	Α	Semi anechoic chamber	3000023	MWB AG		300000551	ne	-/-	-/-
3	А	Analyzer-Reference- System (Harmonics and Flicker)	ARS 16/1	SPS	A3509 07/0 0205	300003314	vlKI!	29.12.2021	31.12.2023
4	Α	Antenna Tower	Model 2175	ETS-Lindgren	64762	300003745	izw	-/-	-/-
5	Α	Positioning Controller	Model 2090	ETS-Lindgren	64672	300003746	izw	-/-	-/-
6	А	Turntable Interface- Box	Model 105637	ETS-Lindgren	44583	300003747	izw	-/-	-/-
7	А	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck Mess - Elektronik	318	300003696	vlKI!	30.09.2021	29.09.2023
8	Α	Turntable	2089-4.0	EMCO		300004394	ne	-/-	-/-
9	Α	PC	TecLine	F+W		300004388	ne	-/-	-/-
10	Α	EMI Test Receiver	ESR3	Rohde & Schwarz	102587	300005771	k	09.12.2022	31.12.2023

© cetecom advanced GmbH Page 9 of 24



7.2 Shielded fully anechoic chamber



Measurement distance: loop antenna 3 meter / 1 meter

FS = UR + CA + AF

(FS-field strength; UR-voltage at the receiver; CA-loss of the signal path; AF-antenna factor)

Example calculation:

FS $[dB\mu V/m] = 40.0 [dB\mu V/m] + (-35.8) [dB] + 32.9 [dB/m] = 37.1 [dB\mu V/m] (71.61 \(\mu V/m \))$

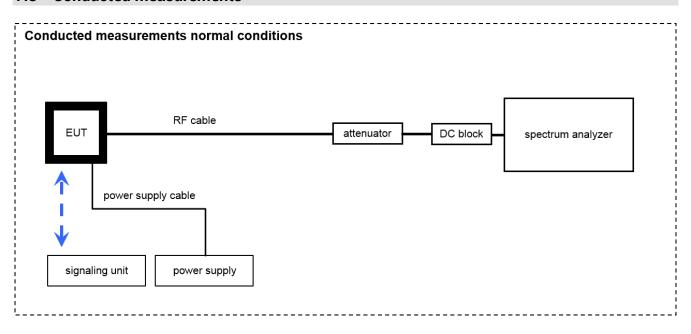
Equipment table:

No.	Setup	Equipment	Туре	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	Α	Active Loop Antenna 9 kHz to 30 MHz	6502	EMCO	2210	300001015	vlKI!	01.07.2023	31.07.2025
2	Α	4U RF Switch Platform	L4491A	Agilent Technologies	MY50000032	300004510	ne	-/-	-/-
3	А	Computer	Intel Core i3 3220/3,3 GHz, Prozessor		2V2403033A54 21	300004591	ne	-/-	-/-
4	Α	NEXIO EMV- Software	BAT EMC V2022.0.22.0	Nexio		300004682	ne	-/-	-/-
5	Α	Anechoic chamber		TDK		300003726	ne	-/-	-/-
6	Α	EMI Test Receiver 9kHz-26,5GHz	ESR26	Rohde & Schwarz	101376	300005063	k	13.12.2022	31.12.2023

© cetecom advanced GmbH Page 10 of 24



7.3 Conducted measurements



OP = AV + CA

(OP-output power; AV-analyzer value; CA-loss signal path)

Example calculation:

OP [dBm] = 6.0 [dBm] + 11.7 [dB] = 17.7 [dBm] (58.88 mW)

Equipment table:

No.	Setup	Equipment	Туре	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	Α	Loop Antenna		ZEG TS Steinfurt		400001208	ev	-/-	-/-
2	A	RF Cable BNC	RG58	Huber & Suhner		400001209	ev	-/-	-/-
3	Α	Signal analyzer	FSV30	Rohde&Schwarz	104365	300005923	k	13.12.2022	31.12.2023

© cetecom advanced GmbH Page 11 of 24



8 Sequence of testing

8.1 Sequence of testing radiated spurious 9 kHz to 30 MHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, it is placed on a table with 0.8 m height.
- If the EUT is a floor standing device, it is placed directly on the turn table.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 3 m (see ANSI C 63.4) see test details.
- EUT is set into operation.

Premeasurement*

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna height is 1 m.
- At each turntable position the analyzer sweeps with positive-peak detector to find the maximum of all emissions.

Final measurement

- Identified emissions during the pre-measurement are maximized by the software by rotating the turntable from 0° to 360°.
- Loop antenna is rotated about its vertical axis for maximum response at each azimuth about the EUT.
 (For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT)
- The final measurement is done in the position (turntable and elevation) causing the highest emissions with quasi-peak (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. A plot with the graph of the premeasurement and the limit is stored.

© cetecom advanced GmbH Page 12 of 24

^{*)}Note: The sequence will be repeated three times with different EUT orientations.



8.2 Sequence of testing radiated spurious 30 MHz to 1 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 10 m or 3 m (see ANSI C 63.4) see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1 m to 3 m.
- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement

- The final measurement is performed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximize the peaks by changing turntable position ± 45° and antenna height between 1 and 4 m.
- The final measurement is done with quasi-peak detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit are recorded. A plot with the graph of the premeasurement with marked maximum final results and the limit is stored.

© cetecom advanced GmbH Page 13 of 24



9 Measurement uncertainty

Measurement uncertainty						
Test case Uncertainty						
Occupied bandwidth	± used RBW					
Field strength of the fundamental	± 3 dB					
Field strength of the harmonics and spurious	± 3 dB					
Receiver spurious emissions and cabinet radiations	± 3 dB					
Conducted limits	± 2.6 dB					

© cetecom advanced GmbH Page 14 of 24



10 Summary of measurement results

\boxtimes	No deviations from the technical specifications were ascertained
	There were deviations from the technical specifications ascertained
	This test report is only a partial test report. The content and verdict of the performed test cases are listed below.

TC Identifier	Description	Verdict	Date	Remark
_	CFR Part 15			
RF-Testing	RSS 210 Issue 10	See table!	2023-12-13	-/-
	RSS Gen Issue 5			

Test specification clause	Test case	Temperature conditions	Power source conditions	С	NC	NA	NP	Remark
RSS Gen Issue 5 (6.6)	Occupied bandwidth	Nominal	Nominal	\boxtimes				-/-
§ 15.209	Field strength of the fundamental	Nominal	Nominal	\boxtimes				-/-
§ 15.209 RSS Gen Issue 5 (6.13)	Field strength of the harmonics and spurious	Nominal	Nominal	\boxtimes				-/-
§15.107 §15.207	Conducted limits	Nominal	Nominal			×		Battery powered only!

Note: NA = Not applicable; NP = Not performed; C = Compliant; NC = Not compliant

11 Additional comments

Reference documents: None

Special test descriptions: None

Configuration descriptions: None

© cetecom advanced GmbH Page 15 of 24



12 Measurement results

12.1 Occupied bandwidth

Measurement:

The emission bandwidth (x dB) is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated x dB below the maximum in-band spectral density of the modulated signal.

Measurement parameters				
Detector:	Peak			
Resolution bandwidth:	1 % - 5 % of the occupied bandwidth			
Video bandwidth:	≥ 3x RBW			
Trace mode:	Max hold			
Analyser function:	99 % power function			
Used test setup:	See sub clause 7.3 – A			
Measurement uncertainty:	See sub clause 9			

Limit:

IC
for RSP-100 test report coversheet only

Result:

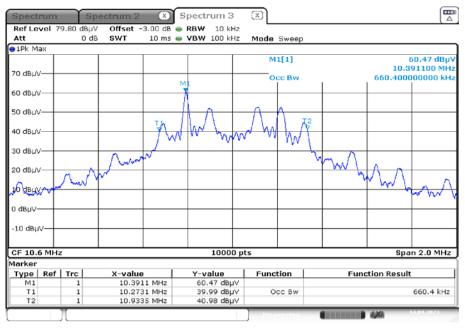
99% emission bandwidth	
660.4 kHz	

© cetecom advanced GmbH Page 16 of 24



Plot:

Plot 1:99 % emission bandwidth



Date: 14.SEP.2023 13:48:56

© cetecom advanced GmbH Page 17 of 24



12.2 Field strength of the fundamental

Measurement:

The maximum detected field strength for the carrier signal.

Measurement parameters				
Detector:	average			
Resolution bandwidth:	9 kHz			
Video bandwidth:	≥ 3x RBW			
Trace mode:	Max hold			
Used test setup	See sub clause 7.2 – A			
Measurement uncertainty:	See sub clause 9			

Limit:

FCC & IC					
Frequency	Field strength	Measurement distance			
(MHz)	(μV/m)	(m)			
1.705 - 30.0	30	30			

Recalculation:

According to ANSI C63.10					
Frequency	Formula	Correction value			
10.6 MHz	$FS_{limit} = FS_{max} - 40 \log \left(\frac{d_{\textit{nearfield}}}{d_{\textit{measure}}}\right) - 20 \log \left(\frac{d_{\textit{limit}}}{d_{\textit{nearfield}}}\right)$ is the calculation of field strength at the limit distance, expressed in dB μ V/m FS_{max} is the measured field strength, expressed in dB μ V/m dener field is the λ /2 π distance deneasure is the distance of the measurement point from EUT dimit is the reference limit distance	-42.62 dB from 1 m to 30 m			

Result:

Field strength of the fundamental					
Frequency 10.6 MHz					
Distance	@ 1 m	@ 30 m			
Measured / calculated value	60.8 dBμV/m	18.2 dBμV/m			

© cetecom advanced GmbH Page 18 of 24



12.3 Field strength of the harmonics and spurious

Measurement:

The maximum detected field strength for the harmonics and spurious.

Measurement parameters				
Detector:	Quasi peak / average or			
Detector.	peak (worst case – pre-scan)			
	F < 150 kHz: 200 Hz			
Resolution bandwidth:	150 kHz < F < 30 MHz: 9 kHz			
	30 MHz < F < 1 GHz: 120 kHz			
	F < 150 kHz: 1 kHz			
Video bandwidth:	150 kHz < F < 30 MHz: 100 kHz			
	30 MHz < F < 1 GHz: 300 kHz			
Trace mode:	Max hold			
Head toot actum	9 kHz to 30 MHz: see sub clause 7.2 – A			
Used test setup:	30 MHz to 1 GHz: see sub clause 7.1 – A			
Measurement uncertainty:	See sub clause 9			

Limit:

FCC					
Frequency	Field strength	Measurement distance			
(MHz)	(dBµV/m)	(m)			
0.009 - 0.490	2400/F(kHz)	300			
0.490 - 1.705	24000/F(kHz)	30			
1.705 – 30	30 (29.5 dBμV/m)	30			
30 - 88	100 (40 dBμV/m)	3			
88 – 216	150 (43.5 dBμV/m)	3			
216 – 960	200 (46 dBμV/m)	3			

IC					
Frequency	Field strength	Measurement distance			
(MHz)	(μA/m)	(m)			
0.009 - 0.490	6.37/F (F in kHz)	300			
0.490 - 1.705	63.7/F (F in kHz)	30			
1.705 – 30	0.08 (-22 dBμA/m)	30			

Result:

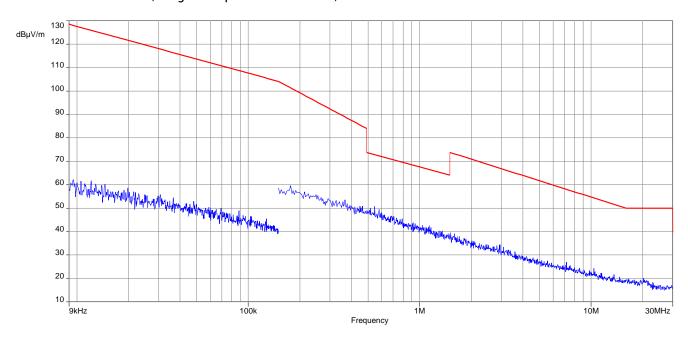
Detected emissions					
Frequency (MHz)	Detector	Resolution bandwidth (kHz)	Detected value		
All detected peak emissions below 30 MHz are more than 20 dB below the average limit.					
For emissions above 30 MHz, please look at the table below the 1 GHz plot.					

© cetecom advanced GmbH Page 19 of 24

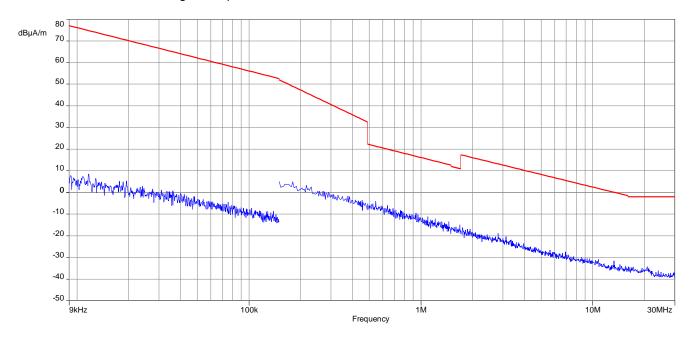


Plots:

Plot 1: 9 kHz - 30 MHz, magnetic spurious emissions, FCC



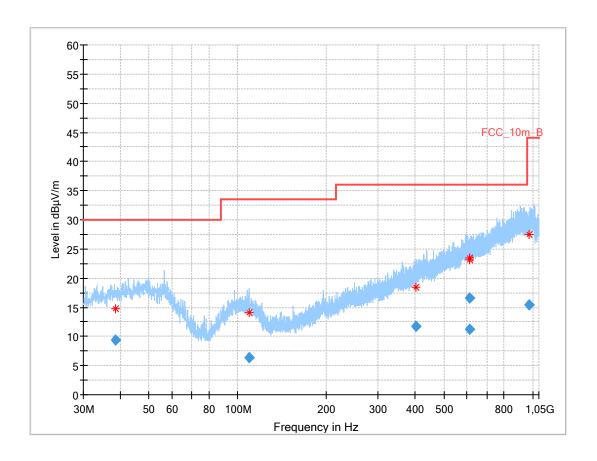
Plot 2: 9 kHz - 30 MHz, magnetic spurious emissions, IC



© cetecom advanced GmbH Page 20 of 24



Plot 2: 30 MHz – 1 GHz, vertical and horizontal polarization



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
38.435	9.34	30.0	20.7	1000	120.0	200.0	V	140	15
109.388	6.45	33.5	27.1	1000	120.0	400.0	V	135	13
402.869	11.76	36.0	24.2	1000	120.0	200.0	V	225	18
611.739	11.24	36.0	24.8	1000	120.0	159.0	Н	225	22
613.806	16.54	36.0	19.5	1000	120.0	144.0	Н	180	22
970.654	15.46	44.0	28.5	1000	120.0	200.0	٧	225	26

© cetecom advanced GmbH Page 21 of 24



13 Observations

No observations except those reported with the single test cases have been made.

© cetecom advanced GmbH Page 22 of 24



14 Glossary

EUT	Equipment under test					
DUT	Device under test					
UUT	Unit under test					
GUE	GNSS User Equipment					
ETSI	European Telecommunications Standards Institute					
EN	European Standard					
FCC	Federal Communications Commission					
FCC ID	Company Identifier at FCC					
IC	Industry Canada					
PMN	Product marketing name					
HMN	Host marketing name					
HVIN	Hardware version identification number					
FVIN	Firmware version identification number					
EMC	Electromagnetic Compatibility					
HW	Hardware					
SW	Software					
Inv. No.	Inventory number					
S/N or SN	Serial number					
С	Compliant					
NC	Not compliant					
NA	Not applicable					
NP	Not performed					
PP	Positive peak					
QP	Quasi peak					
AVG	Average					
ОС	Operating channel					
ocw	Operating channel bandwidth					
OBW	Occupied bandwidth					
ООВ	Out of band					
DFS	Dynamic frequency selection					
CAC	Channel availability check					
OP	Occupancy period					
NOP	Non occupancy period					
DC	Duty cycle					
PER	Packet error rate					
CW	Clean wave					
MC	Modulated carrier					
WLAN	Wireless local area network					
RLAN	Radio local area network					
DSSS	Dynamic sequence spread spectrum					
OFDM	Orthogonal frequency division multiplexing					
FHSS	Frequency hopping spread spectrum					
GNSS	Global Navigation Satellite System					
C/N ₀	Carrier to noise-density ratio, expressed in dB-Hz					

© cetecom advanced GmbH Page 23 of 24



15 Document history

Version	Applied changes	Date of release	
-/-	Initial release	2023-11-09	
Α	Model name changed	2023-12-13	

© cetecom advanced GmbH Page 24 of 24