
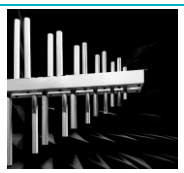
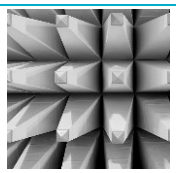

Bundesnetzagentur

BNetzA-CAB-02/21-102

TEST REPORT

Test report no.: 1-5668_23-01-02-B

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://www.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 starting with the registration number: D-PL-12076-01.

Applicant

Philips Medizin Systeme Böblingen GmbH
Hewlett-Packard-Strasse 2
71034 Böblingen / GERMANY
Phone: -/-
Contact: Hansjörg Geywitz
e-mail: hansjoerg.geywitz@philips.com

Manufacturer

Philips Medizin Systeme Böblingen GmbH
Hewlett-Packard-Strasse 2
71034 Böblingen / GERMANY

Test standard/s

FCC - Title 47 CFR Part 95	FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 95 - Personal Radio Services
RSS - 210 Issue 10 incl. Amendment	Spectrum Management and Telecommunications Radio Standards 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:	**Base Station**
Model name:	**866074 Avalon CL Base Station**
FCC ID:	**PQC-OBRBSBV1**
ISED certification number:	**3549C-OBRBSBV1**
Frequency:	608 MHz to 614 MHz
Technology tested:	proprietary
Antenna:	Integrated antenna
Power supply:	100 V to 240 V AC mains
Temperature range:	-20°C to +55°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:

cn=Christoph Schneider, o=cetecom advanced GmbH, ou=SND-230601, email=christoph.schneider@cetecomadvanced.com, c=DE
2023.12.14 07:33:06 +01'00'

Christoph Schneider
Lab Manager
Radio Labs

Test performed:

cn=Joachim Wolsdorfer, o=cetecom advanced GmbH, ou=WLD-230605, email=joachim.wolsdorfer@cetecomadvanced.com, c=DE
2023.12.14 07:13:44 +01'00'

Hans-Joachim Wolsdorfer
Lab Manager
Radio Labs

1 Table of contents

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.
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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 1-5668/23-01-02 and dated 2023-07-10

2.2 Application details

Date of receipt of order:	2023-05-10
Date of receipt of test item:	2023-05-12
Start of test:*	2023-05-15
End of test:*	2023-07-10
Person(s) present during the test:	-/-

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

2.3 Test laboratories sub-contracted

None

3 Test standard/s, references and accreditations

Test standard	Date	Description
FCC - Title 47 CFR Part 95		FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 95 - Personal Radio Services
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

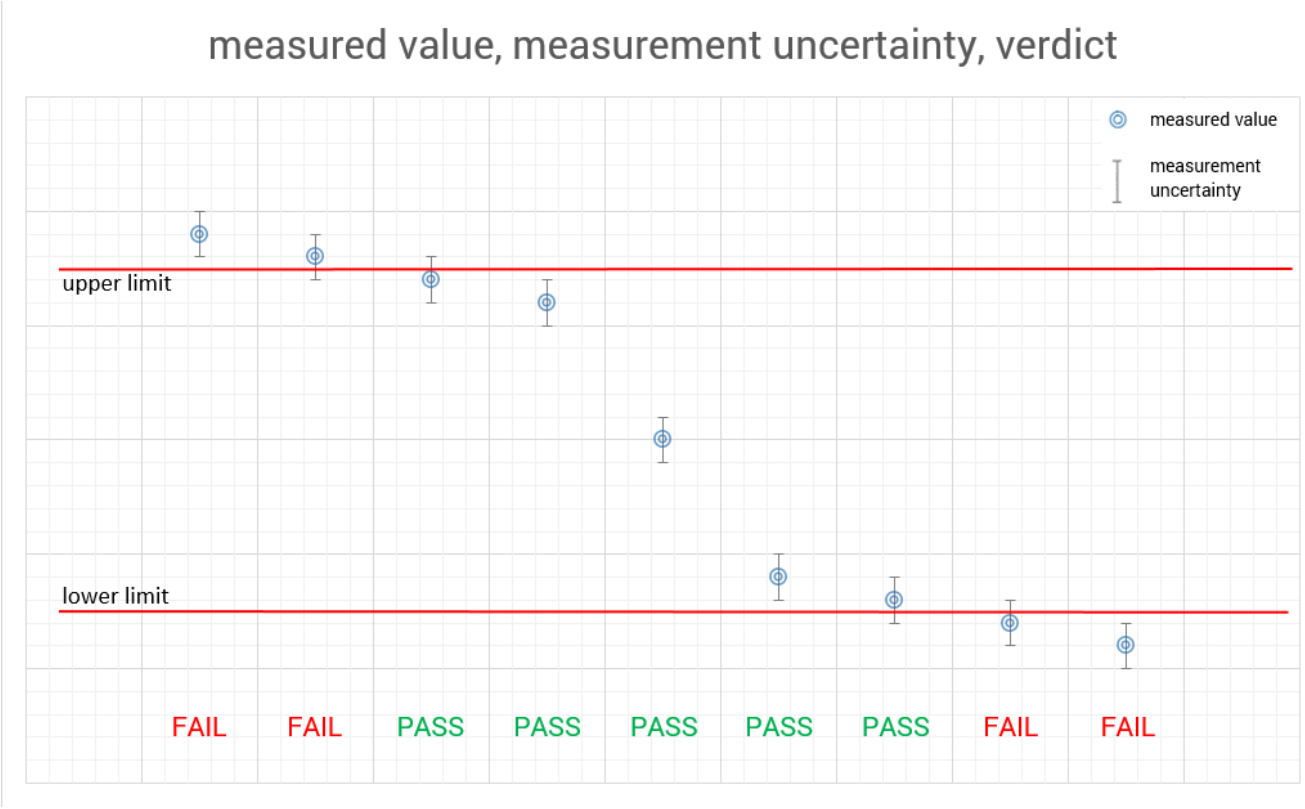
Guidance	Version	Description
ANSI C63.4-2014	-/-	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ANSI C63.10-2013	-/-	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
ANSI C63.26-2015	-/-	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

Accreditation	Description
D-PL-12076-01-04	Telecommunication and EMC Canada https://www.dakks.de/as/ast/d/D-PL-12076-01-04e.pdf
D-PL-12076-01-05	Telecommunication FCC requirements https://www.dakks.de/as/ast/d/D-PL-12076-01-05e.pdf

ISED Testing Laboratory Recognized Listing Number: DE0001
FCC designation number: DE0002

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."



5 Test environment

Temperature	:	T_{nom} T_{max} T_{min}	+22 °C during room temperature tests No tests under extreme environmental conditions performed. No tests under extreme environmental conditions performed.
Relative humidity content	:		55 %
Barometric pressure	:		1021 hpa
Power supply	:	V_{nom} V_{max} V_{min}	120 V AC mains No tests under extreme environmental conditions performed. No tests under extreme environmental conditions performed.

6 Test item

6.1 General description

Kind of test item	:	Base Station
Model name	:	866074 Avalon CL Base Station
HMN	:	-/-
PMN	:	866074
HVIN	:	866074
FVIN	:	-/-
S/N serial number	:	DE64718017
Hardware status	:	2304
Software status	:	-/-
Firmware status	:	B.01.07
Frequency band	:	608 MHz to 614 MHz Lowest channel 3 (608.375MHz) / Highest Channel 38 (613.625MHz)
Type of radio transmission Use of frequency spectrum	: :	Modulated carrier
Type of modulation	:	GFSK
Number of channels	:	36
Antenna	:	Integrated antenna
Power supply	:	100 V to 240 V AC mains
Temperature range	:	-20°C to +55°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: 1-5668_23-01-01_AnnexA
1-5668_23-01-01_AnnexB
1-5668_23-01-01_AnnexD

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).

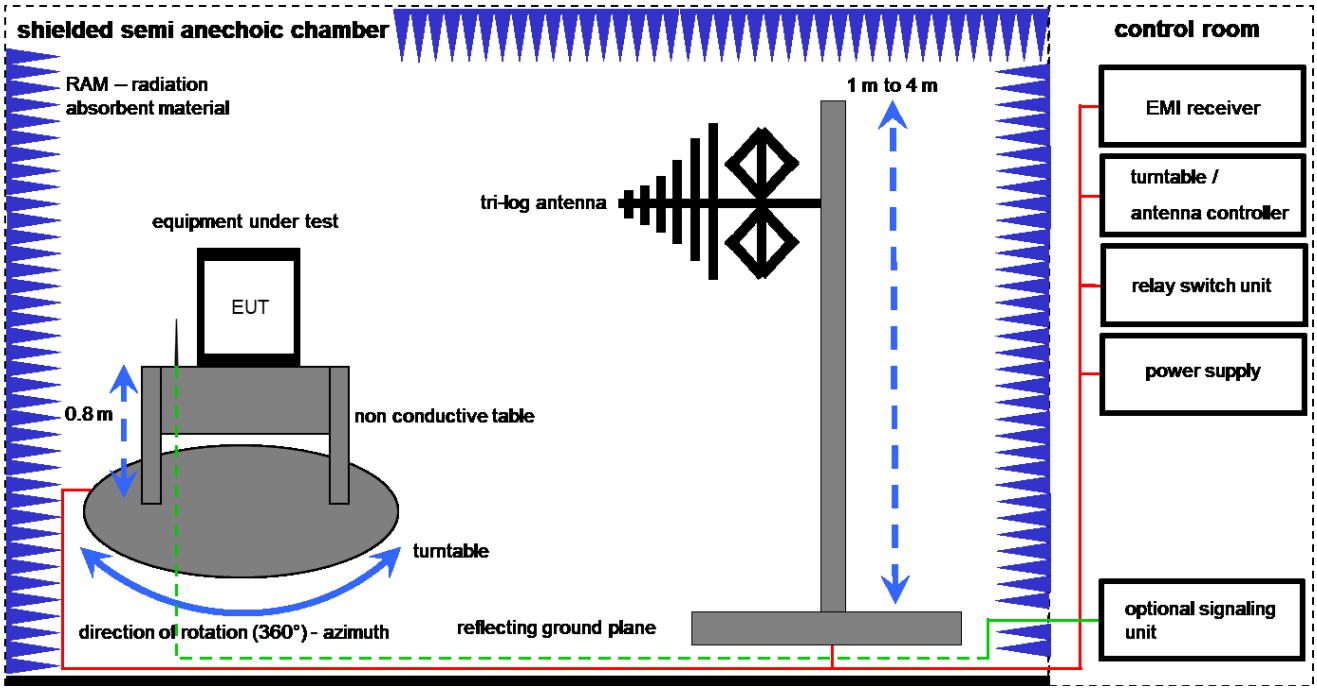
Each block diagram listed can contain several test setup configurations. All devices belonging to a test setup are identified with the same letter syntax. For example: Column Setup and all devices with an A.

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

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

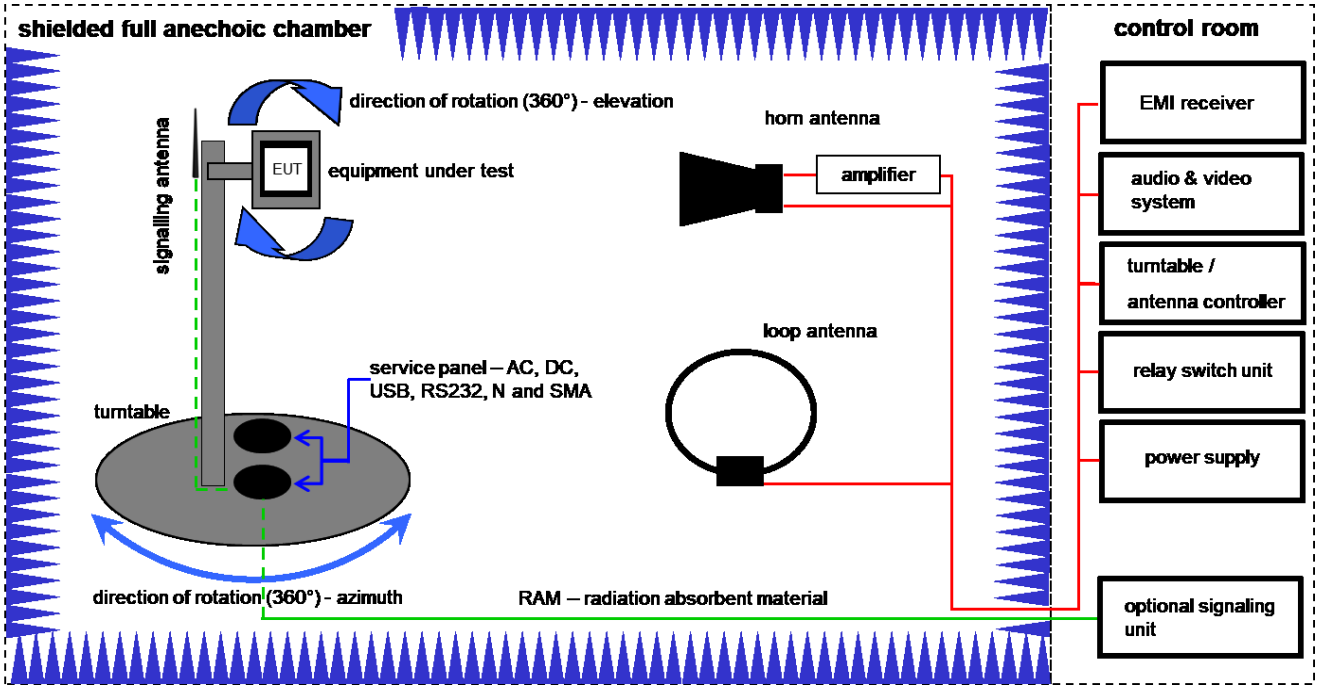
FS = UR + CL + AF
(FS-field strength; UR-voltage at the receiver; CL-loss of the cable; AF-antenna factor)

Example calculation:
FS [dBµV/m] = 12.35 [dBµV/m] + 1.90 [dB] + 16.80 [dB/m] = 31.05 [dBµV/m] (35.69 µV/m)

Equipment table:

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

7.2 Shielded fully anechoic chamber



Measurement distance: horn antenna 3 meter; loop antenna 3 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 [dBµV/m] = 40.0 [dBµV/m] + (-35.8) [dB] + 32.9 [dB/m] = 37.1 [dBµV/m] (71.61 µV/m)

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A	Active Loop Antenna 9 kHz to 30 MHz	6502	EMCO	2210	300001015	vlKl!	01.07.2021	31.07.2023
2	A,B	Anechoic chamber	FAC 3/5m	MWB / TDK	87400/02	300000996	ev	-/-	-/-
3	A,B	Switch / Control Unit	3488A	HP	-/-	300000199	ne	-/-	-/-
4	B	Double-Ridged Waveguide Horn Antenna 1-18.0GHz	3115	EMCO	8812-3089	300000307	vlKl!	11.02.2022	29.02.2024
5	A,B	EMI Test Receiver 20Hz- 26,5GHz	ESU26	R&S	100037	300003555	k	07.12.2022	31.12.2023
6	B	Highpass Filter	WHK1.1/15G-10SS	Wainwright	3	300003255	ev	-/-	-/-
7	B	Broadband Amplifier 0.5-18 GHz	CBLU5184540	CERNEX	22049	300004481	ev	-/-	-/-
8	A,B	4U RF Switch Platform	L4491A	Agilent Technologies	MY50000037	300004509	ne	-/-	-/-
9	A,B	NEXIO EMV-Software	BAT EMC V2022.0.22.0	Nexio	-/-	300004682	ne	-/-	-/-

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.

*)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.

8.3 Sequence of testing radiated spurious 1 GHz to 7 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 2-axis positioner with 1.5 m height is used.
- 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 is polarized vertical and horizontal.
- The antenna height is 1.5 m.
- At each turntable position and antenna polarization the analyzer sweeps with positive peak detector 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 maximizes the peaks by rotating the turntable from 0° to 360°. This measurement is repeated for different EUT-table positions (0° to 150° in 30°-steps) and for both antenna polarizations.
- The final measurement is done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and RMS detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, 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.

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

10 Summary of measurement results

☐	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
RF-Testing	47 CFR Part 2 47 CFR Part 95 H RSS Gen Issue 5 RSS 210 Issue 10, Annex C, C3	Passed	2023-12-14	-/-

Test Specification Clause	Test Case	Temperature Conditions	Power Source Voltages	Pass	Fail	NA	NP	Comments
FCC 47 CFR § 2.1046 § 95.2369(a) RSS 210 Issue 10, Annex C.3	Radiated field strength	Nominal	Nominal	☒	☐	☐	☐	-/-
FCC 47 CFR § 2.1055 § 95.2363 RSS Gen Issue 5 A2 6.11	Frequency stability	Nominal	Extreme	☐	☐	☐	☒	-/-
		Extreme	Nominal	☐	☐	☐	☒	
FCC 47 CFR § 2.1049 (1) RSS Gen Issue 5 A2 6.7	Occupied bandwidth	Nominal	Nominal	☐	☐	☐	☒	-/-
FCC 47 CFR § 2.1053 § 95.2379 (a) + (b) RSS Gen Issue 5 A2 6.13	Field strength of spurious radiation Transmitter unwanted emissions	Nominal	Nominal	☒	☐	☐	☐	-/-

Note: NA = Not Applicable; NP = Not Performed

11 RF measurements

11.1 Additional comments

Reference documents:	Test SW Functionality.pdf
Special test descriptions:	none
Configuration descriptions:	Test has been performed on a base station with special test software and a plugged in transducer in the left slot (see photo annex)

12 Measurement results

12.1 Radiated field strength

Measurement:

Measurement parameter			
Detector:	Quasi peak		
Sweep time:	Auto		
Resolution bandwidth:	120kHz		
Video bandwidth:	Auto		
Span:	> EBW		
Trace-Mode:	Max hold		
Measurement uncertainty:	See chapter 9		
Used equipment:	See chapter 7.1A		
Performed:	☐ Conducted	☒ Radiated	☐ Test Fixture

Limits:

FCC	IC
CFR § 2.1046 CFR § 95.2369 (a)	RSS 210 Issue 10 Annex C, C.3
Radiated field strength	
200 mV/m @ 3 m (106 dBµV/m @ 3 m)	

Result:

Frequency	Radiated field strength
608.075 MHz	**103.92dBµV/m @ 3m**
613.925 MHz	**99.73dBµV/m @ 3m**

12.2 Field strength of spurious radiation

Measurement:

Measurement parameter			
Detector:	Peak / AVG		
Sweep time:	Auto		
Resolution bandwidth:	f < 1 GHz : 100 kHz f ≥ 1GHz : 1 MHz		
Video bandwidth:	f < 1 GHz : 100 kHz f ≥ 1GHz : 1 MHz		
Span:	-/-		
Trace-Mode:	Max. hold		
Measurement uncertainty:	See chapter 9		
Used equipment:	See chapter 7.1A, 7.2A/B		
Performed:	☐ Conducted	☒ Radiated	☐ Test Fixture

Limits:

FCC	IC		
47 CFR § 2.1053 47 CFR § 95.2379 (a) + (b)	RSS Gen Issue 5, Chapter 8.9		
Each WMTS transmitter type must be designed to comply with the requirements in this paragraph. (a) Unwanted emissions on frequencies below 960 MHz must not exceed 200 µ V/m, measured at a distance of 3 meters using measuring instrumentation with a CISPR quasi-peak detector. (b) Unwanted emissions on frequencies above 960 MHz must not exceed 500 µ V/m, measured at a distance of 3 meters using measuring equipment with an averaging detector and a 1 MHz measurement bandwidth.	Frequency (MHz)	Field strength (dBµV/m)	Measurement distance
	30 - 88	30.0	10
	88 – 216	33.5	10
	216 – 960	36.0	10
	Above 960	54.0	3

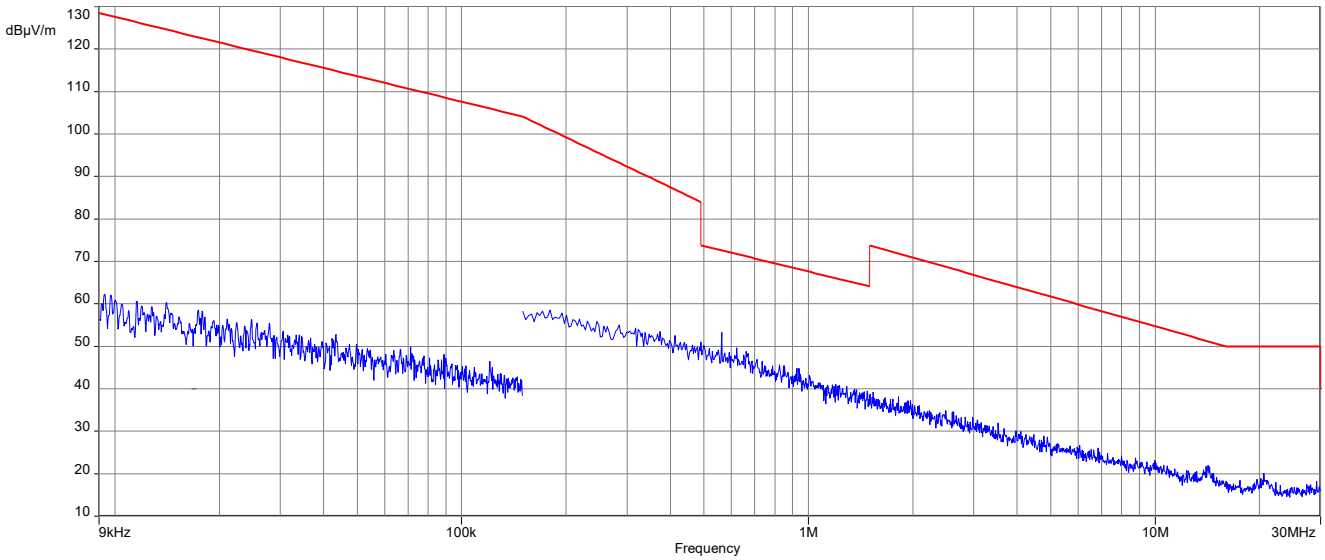
Results:

for the frequency range 30MHz to 1GHz see table below the plots

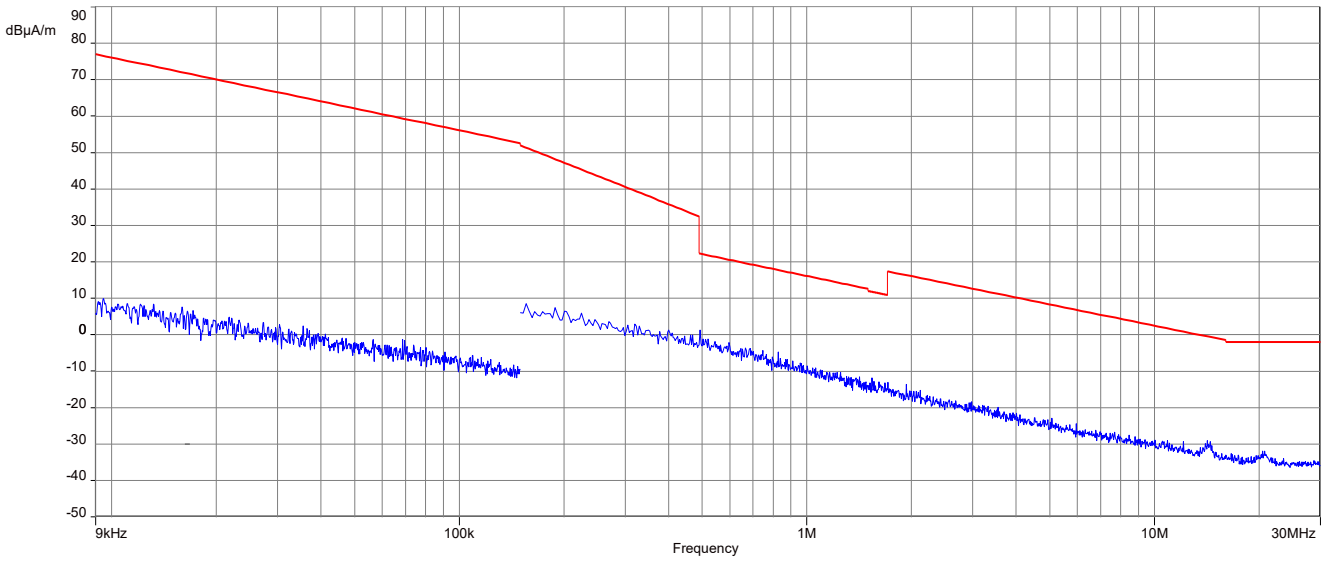
Fundamental Frequency	Spurious Frequency	Detector	Limit max. allowed [dBµV/m]	Amplitude of emission [dBµV/m]
608.375MHz	-/-	Peak	no peaks detected	
		AVG		
613.625MHz	-/-	Peak	no peaks detected	
		AVG		

Plots of the measurements

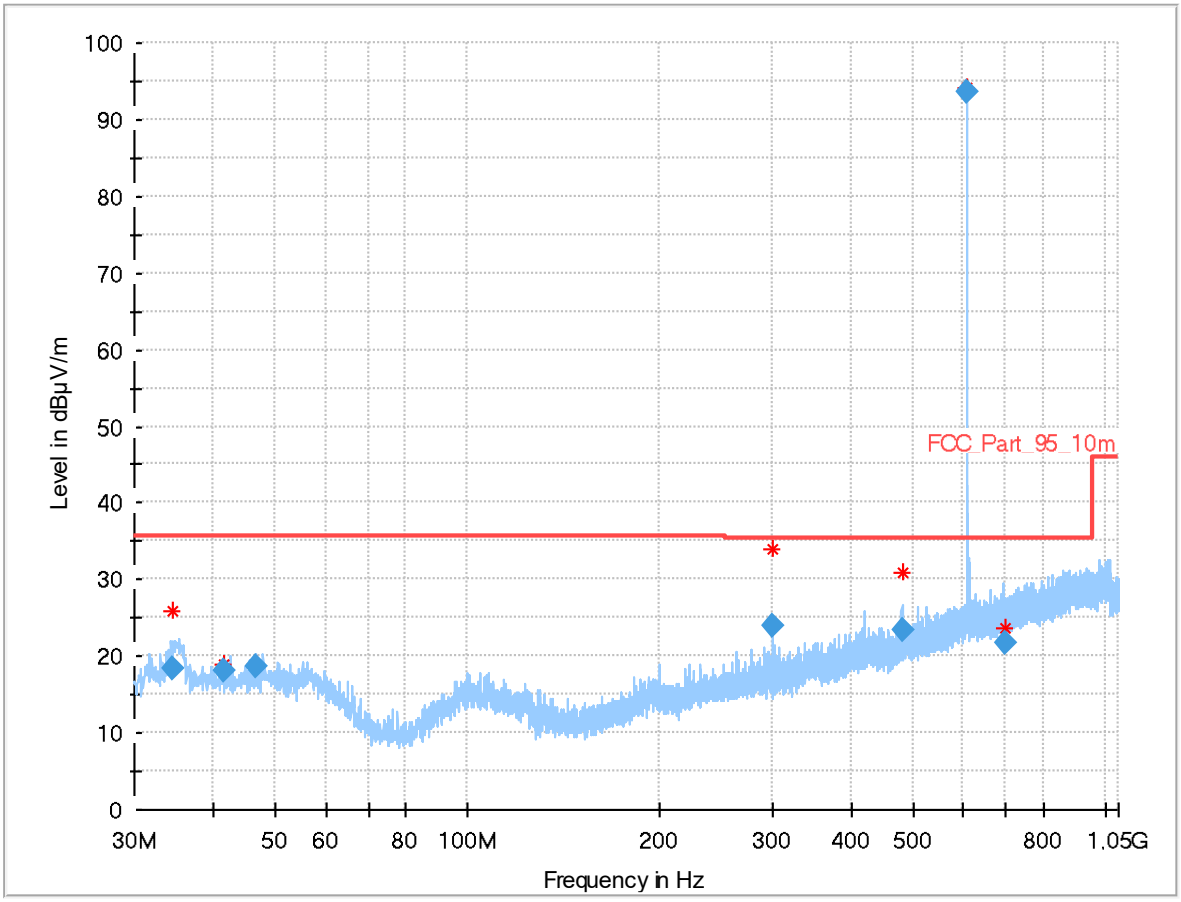
Plot 1: 9 kHz – 30 MHz, low channel, FCC



Plot 2: 9 kHz – 30 MHz, low channel, ISED



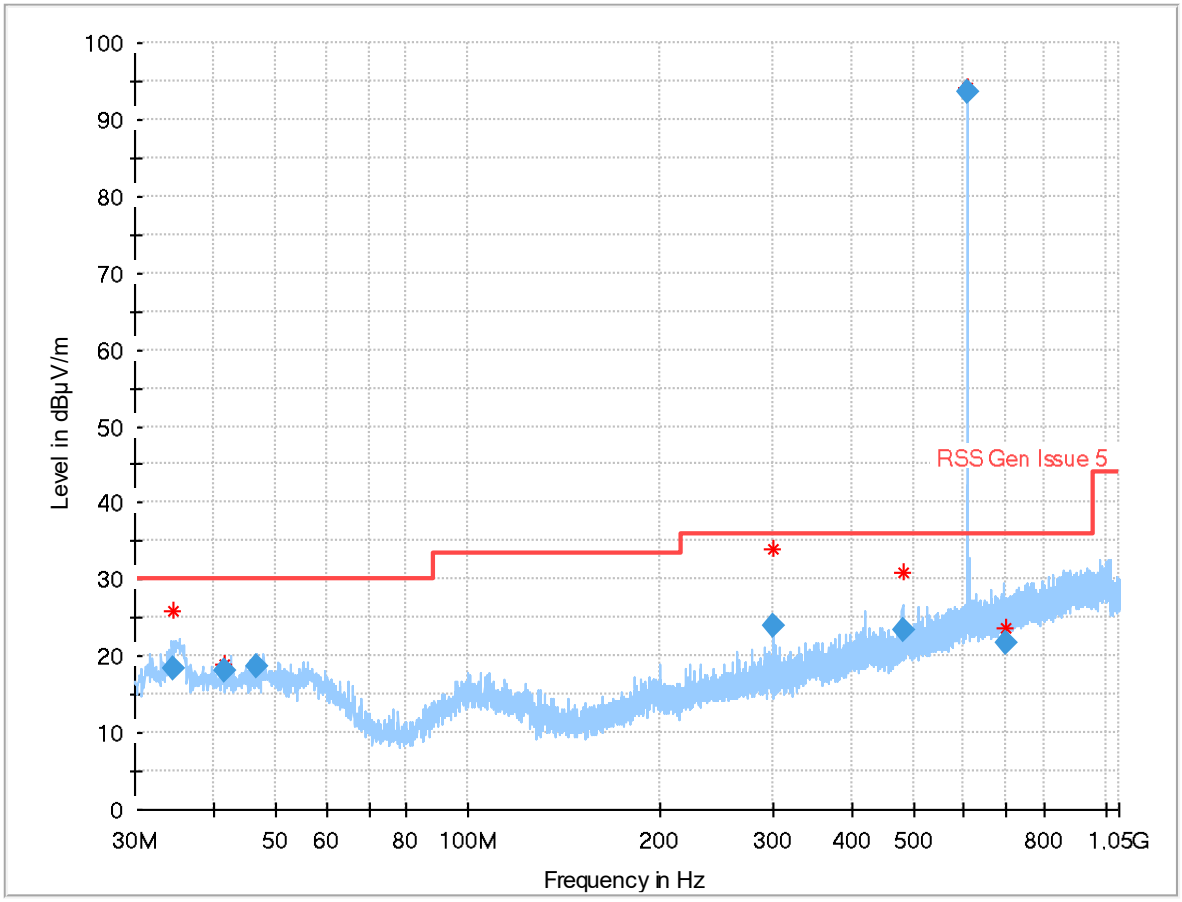
Plot 3: 30 MHz – 1 GHz, low channel FCC



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)
34.554	18.25	35.5	17.3	1000	120.0	133.0	V	164	14
41.482	18.17	35.5	17.4	1000	120.0	179.0	V	60	16
46.507	18.71	35.5	16.8	1000	120.0	101.0	V	307	16
300.017	23.90	35.5	11.6	1000	120.0	195.0	H	217	15
480.028	23.52	35.5	12.0	1000	120.0	195.0	H	238	19
695.181	21.60	35.5	13.9	1000	120.0	195.0	V	52	22

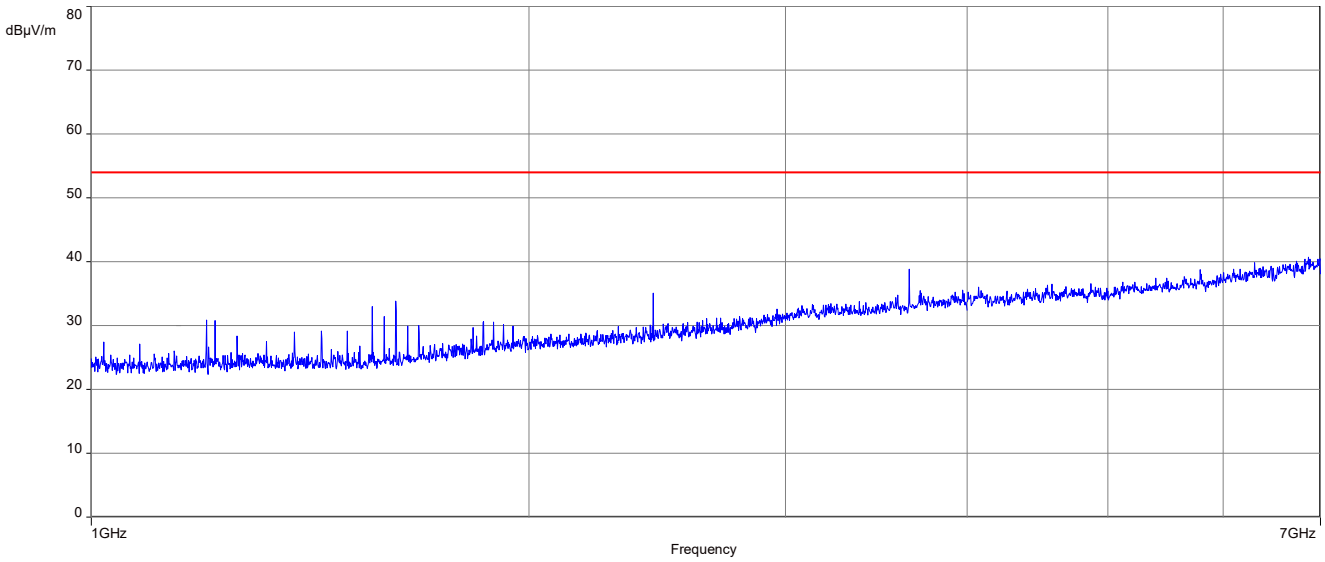
Plot 4: 30 MHz – 1 GHz, low channel ISED



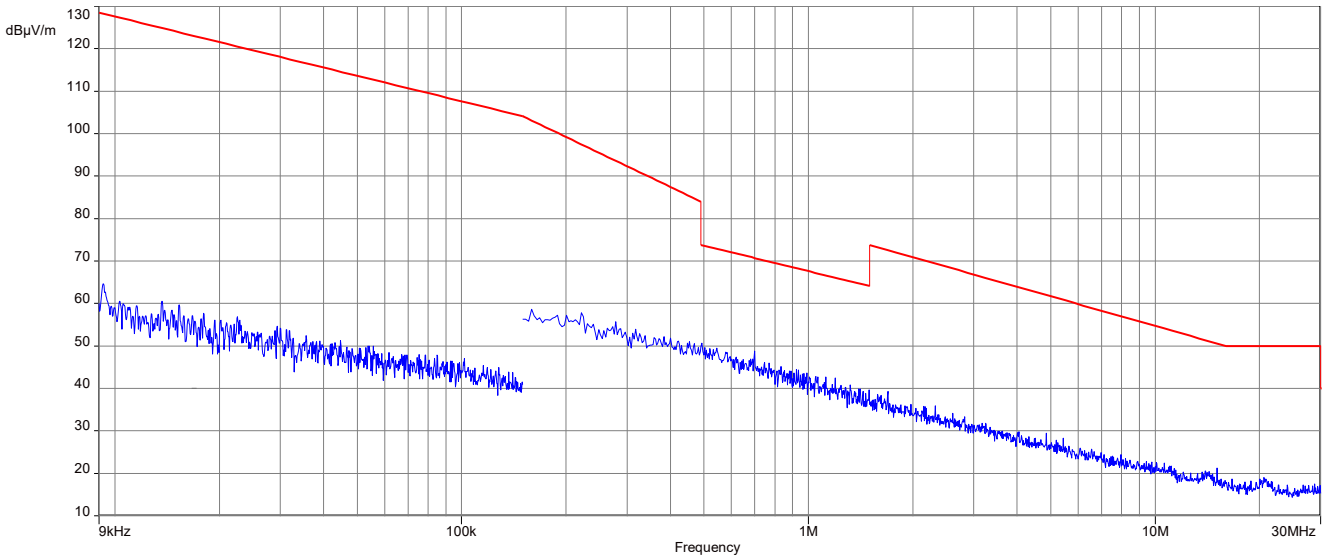
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.554	18.25	30.0	11.8	1000	120.0	133.0	V	164	14
41.482	18.17	30.0	11.8	1000	120.0	179.0	V	60	16
46.507	18.71	30.0	11.3	1000	120.0	101.0	V	307	16
300.017	23.90	36.0	12.1	1000	120.0	195.0	H	217	15
480.028	23.52	36.0	12.5	1000	120.0	195.0	H	238	19
695.181	21.60	36.0	14.4	1000	120.0	195.0	V	52	22

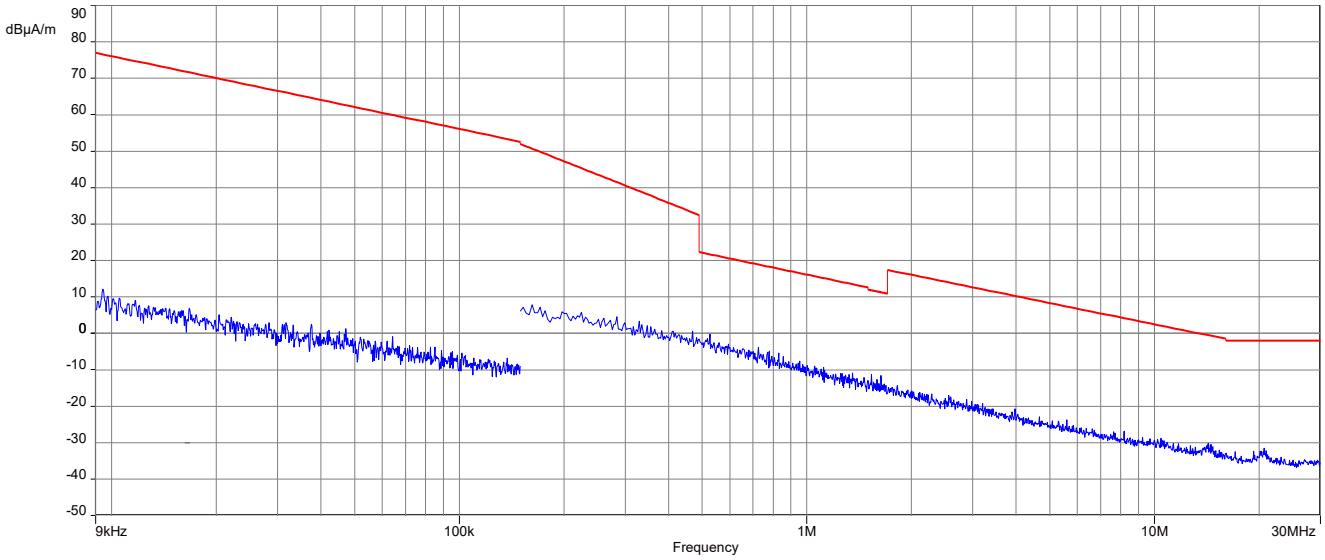
Plot 5: 1 GHz – 7 GHz, low channel, antenna horizontal/vertical



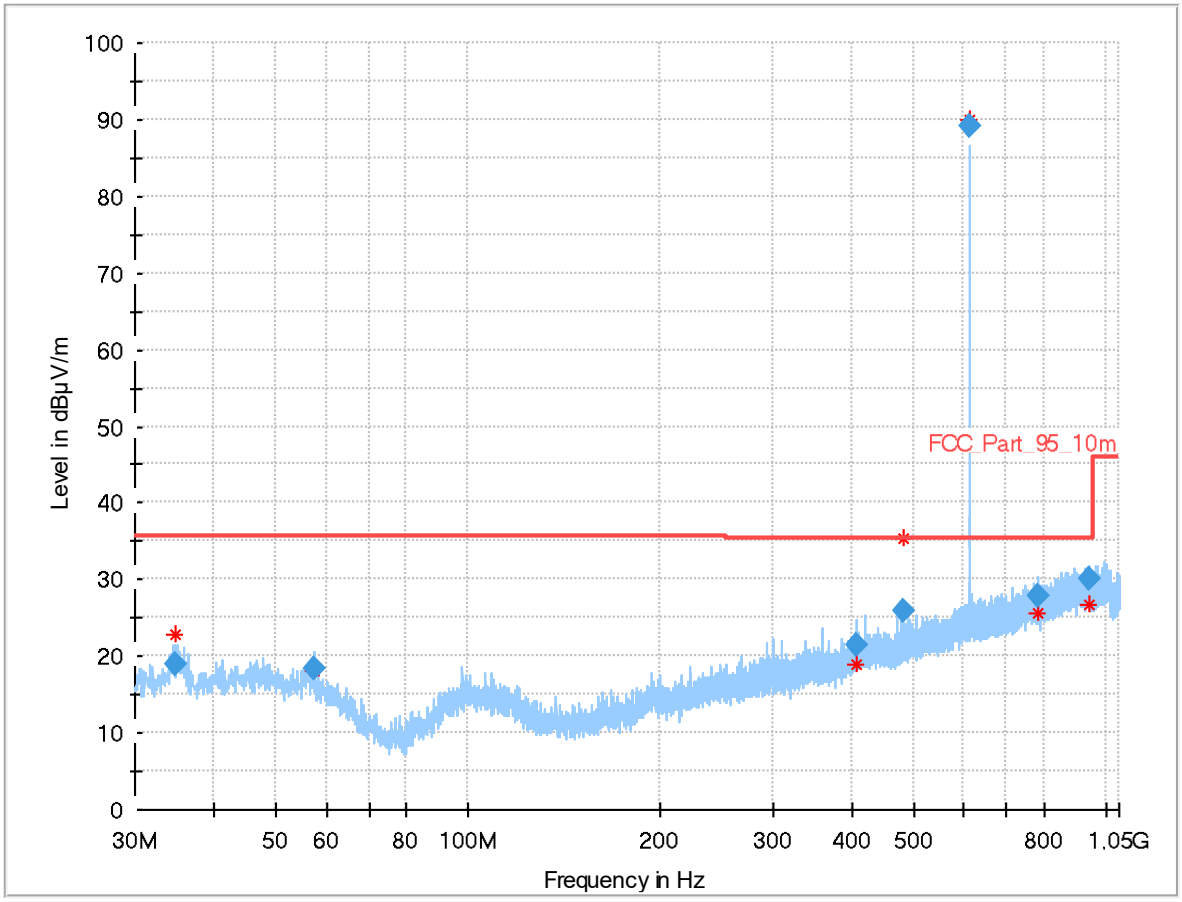
Plot 1: 9 kHz – 30 MHz, high channel, FCC



Plot 2: 9 kHz – 30 MHz, high channel, ISED



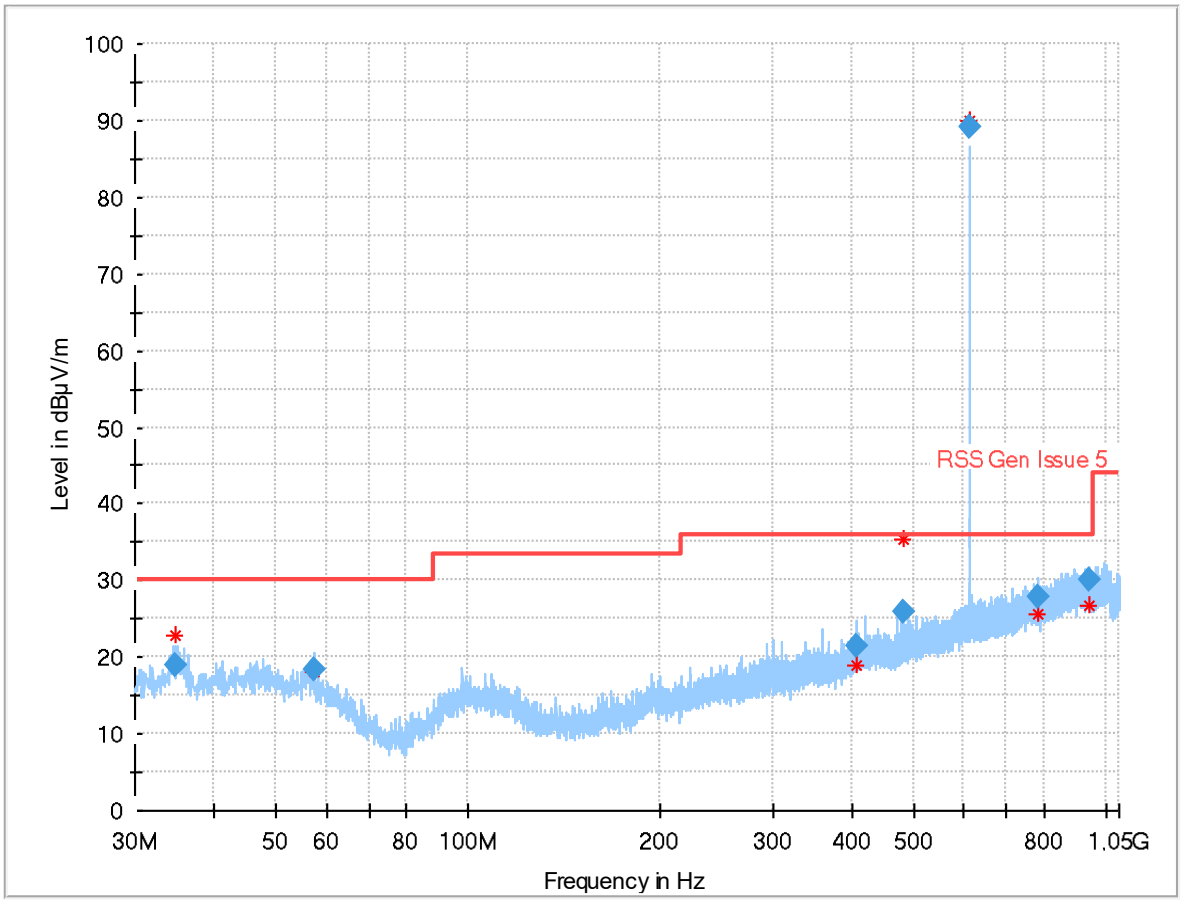
Plot 3: 30 MHz – 1 GHz, high channel, FCC



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)
34.794	18.91	35.5	16.6	1000	120.0	101.0	V	244	14
57.126	18.27	35.5	17.3	1000	120.0	195.0	V	37	16
407.630	21.34	35.5	14.2	1000	120.0	195.0	V	232	18
480.006	25.93	35.5	9.6	1000	120.0	195.0	H	62	19
782.345	27.74	35.5	7.8	1000	120.0	195.0	V	52	24
941.190	30.11	35.5	5.4	1000	120.0	126.0	H	-37	26

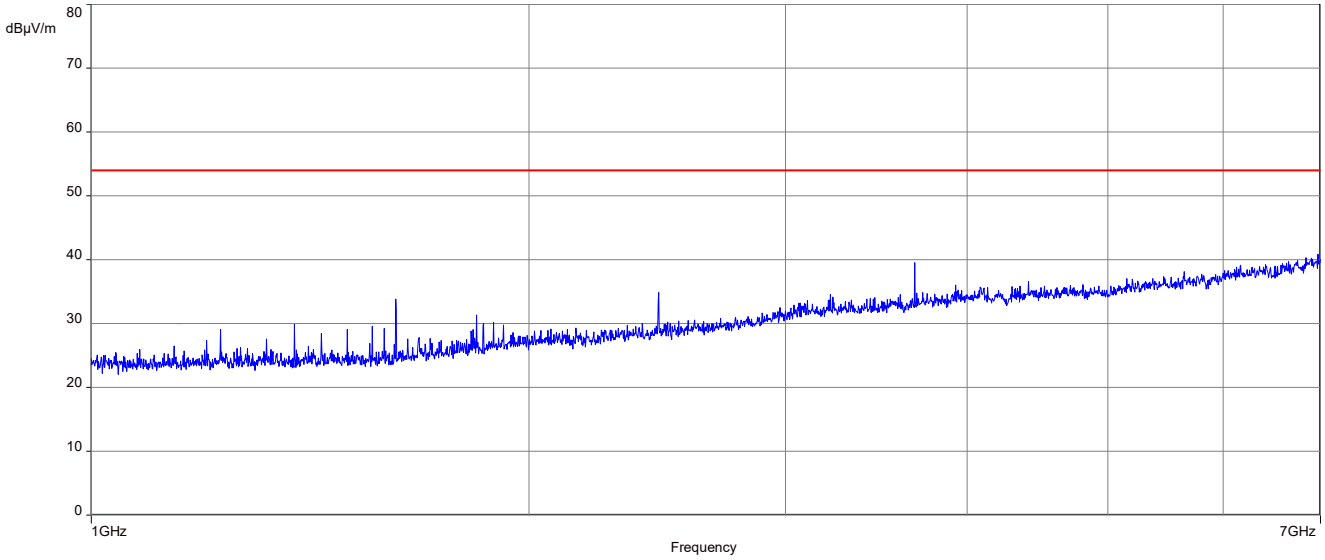
Plot 4: 30 MHz – 1 GHz, high channel, ISED



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)
34.794	18.91	30.0	11.1	1000	120.0	101.0	V	244	14
57.126	18.27	30.0	11.7	1000	120.0	195.0	V	37	16
407.630	21.34	36.0	14.7	1000	120.0	195.0	V	232	18
480.006	25.93	36.0	10.1	1000	120.0	195.0	H	62	19
782.345	27.74	36.0	8.3	1000	120.0	195.0	V	52	24
941.190	30.11	36.0	5.9	1000	120.0	126.0	H	-37	26

Plot 5: 1 GHz – 7 GHz, high channel, antenna horizontal/vertical



13 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
C	Compliant
NC	Not compliant
NA	Not applicable
NP	Not performed
PP	Positive peak
QP	Quasi peak
AVG	Average
OC	Operating channel
OCW	Operating channel bandwidth
OBW	Occupied bandwidth
OOB	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

14 Document history

Version	Applied changes	Date of release
-/-	Initial release	2023-07-10
A	Editorial changes	2023-07-21
B	update reference standards in test summary table on page 15	2023-12-14

################################ END OF TEST REPORT ################################