

RADIO TEST REPORT

No. 2508043STO-110

RF Performance

EQUIPMENT UNDER TEST

Equipment: 13.56 MHz OSDP RFID reader
Type/Model: A4030-E, A4131-E
Additional type/models*: A4130-E
Manufacturer: Axis Communications AB
Tested by request of: Axis Communications AB

*See opinions and interpretations clause 2.4

SUMMARY

Referring to the emission limits, and the operating mode during the tests specified in this report, the equipment complies with the requirements according to the following standards:

47 CFR Part 15 (2024): Subpart C: Intentional radiators. Section 15.225

RSS-Gen, Issue 5 (April 2018) + Amendment 1 (March 2019) + Amendment 2 (February 2021): General requirements of compliance of radio apparatus.

RSS-210 Issue 11 Licence-exempt Radio Apparatus (All Frequency Bands):
Category I Equipment (2024) Annex B.6

For details, see clause 2 – 4.

Prepared by:

Reviewed by:

Revision History

Test report number	Date	Description	Changes
2508043STO-104	March 11, 2026	First release	--
2508043STO-109	May 27, 2026	Second release	Added Conducted Emission tests.
2508043STO-110	June 2, 2026	Third release	Retest of conducted emission and replaced plots and result in section 5.

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1. CLIENT INFORMATION

The EUT has been tested by request of

Company Axis Communications AB
Gränden 1
223 69 Lund Sweden

Name of contact Alexander Holmström
Phone +46 272 35 45

2. EQUIPMENT UNDER TEST (EUT)

2.1 Identification of the EUT

Equipment: 13.56 MHz OSDP RFID reader

Type/Model: A4030-E, A4131-E

Additional type: A4130-E

Brand name: AXIS

Serial number: A4030-E: E827254FB3C
A4131-E: OU42FB1FAD

Manufacturer: Axis Communications AB

Frequency range: 13.553 – 13.567 MHz

Frequency agile or hopping: ☐ Yes ☒ No

Antenna: ☒ Internal antenna ☐ External antenna

Antenna connector: ☒ None, internal antenna ☐ Yes

Rating RF output power: A4030-E: 44.5 dBμV/m at 10m
A4131-E: 47.72 dBμV/m at 10m

Type of modulation: ASK

Temperature range: ☐ Category I (General): -20°C to +55°C
☐ Category II (Portable equipment): -10°C to +55°C
☐ Category III (Equipment for normal indoor use): +5°C to +35°C
☒ Other: -40°C to +65°C (declared by the manufacturer)

Transmitter stand by mode supported: ☐ Yes ☒ No

2.2 Additional information about the EUT

The EUT consists of the following units:

Unit	Type	Serial / Uniq Id no.
OSDP RFID reader	A4030-E	E827254FB3C
OSDP RFID reader	A4131-E	OU42FB1FAD

During the tests the EUT supported following software:

Software	Version	Comment
Software	1.0.31.	-

The EUT was tested with the following cables:

Port:	Type:	Length: [m]	Specifications:
Ethernet	PoE	3.0	unshielded

2.3 Peripheral equipment

Peripheral equipment is equipment needed for correct operation of the EUT but not included as part of the testing and evaluation of the EUT.

Equipment	Type / Model	Manufacturer	Serial no.
OSDP Access Controller	AXIS A1210	AXIS	B8A44F8121CC

2.4 Opinions and interpretations

The following type is also included as additional type in this test report:
A4130-E

The difference as compared to the tested type is (according to the manufacturer):
The A4030-E, A4130-E, and A4131-E are new Axis 13.56MHz RFID card readers. A4030-E and A4130-E have the same functionality but different mechanical formfactor. A4131-E is the same as A4130-E with the only difference being that A4131-E has touch keypad functionality with backlight.

The difference is considered not to affect EMC-characteristics when compared to the tested type. Therefore, the tests performed is also considered to cover the additional types.

3. TEST SPECIFICATIONS

3.1 Standards

Requirements:

47 CFR Part 15 (2023): Radio frequency device, Subpart C: Intentional radiators.

RSS-Gen, Issue 5 (April 2018) + Amendment 1 (March 2019) + Amendment 2 (February 2021):
General requirements of compliance of radio apparatus.

RSS-210 Issue 11 Licence-exempt Radio Apparatus (All Frequency Bands):
Category I Equipment (2024)

Test methods:

FCC: ANSI C63.10-2020: American National Standard of Procedures for Compliance Testing of
Unlicensed Wireless Devices.

ISED: ANSI C63.10-2020 + Corr1 2023 + Amd1 2024 + Amd1- Errata 2024: American National
Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

3.2 Additions, deviations and exclusions from standards and accreditation

No additions, deviations or exclusions have been made from standards and accreditation.

3.3 Decision rule

The statements of conformity are reported as:

Passed – When the measured values are within the specified limits.

Failed – When one or more measures values are outside the specified limits

3.4 Test site

Measurements were performed at:

Intertek Semko AB.
Torshamnsgatan 43,
P.O. Box 1103
SE-164 22 Kista

Intertek Semko AB is a FCC listed test site with site registration number 90913

Intertek Semko AB is a FCC accredited conformity assessment body with designation number SE0002

Intertek Semko AB is an Industry Canada listed test facility with IC assigned code 2042G

Intertek Semko AB is an ISED recognized wireless testing laboratory with CAB identifier SE0003.

Measurement chambers

Measurement Chamber	Type of chamber	IC Site filing #
10m SAR	Semi-anechoic 10 m and 3 m	2042G-2
3m FAR	Fully anechoic 3 m	2042G-4

3.5 Mode of operation during the test

The Equipment Under Test (EUT) is an RFID reader powered via IEEE 802.3 Power over Ethernet (PoE) through an OSDP control unit. The RF circuitry within the EUT is supplied by internally regulated voltage rails, which remain stable across the specified PoE input voltage range.

As the EUT does not have a direct user-accessible or adjustable supply input to the RF circuitry, extreme voltage variation testing was considered not applicable. The EUT was therefore evaluated under nominal operating conditions using the intended PoE power configuration.

During all tests, the EUT was configured to operate in its normal continuous transmit/read mode. A passive RFID tag was positioned at a fixed distance of 2 cm from the EUT antenna to ensure continuous RF emission and repeatable test conditions throughout the measurements.

4. TEST SUMMARY

The results in this report apply only to sample tested:

Requirement	Description	Result
	Emission	
FCC Part 15.203 RSS-GEN 6.8	Antenna EUT has an integrated antenna which can't be removed without breaking the EUT	PASS
FCC Part 15.205 RSS-GEN 8.10	Restricted bands of operations The transmit frequency, including fundamental components of modulation, of licence-exempt radio apparatus shall not fall within the restricted frequency bands listed in CFR 47 §15.205 and in RSS-GEN section 8.10 EUT operates in an unrestricted 13.56 MHz frequency band.	PASS
FCC Part 15.207, 15.107 RSS-GEN 8.8 table 4	Conducted continuous emission in the frequency range 150 kHz to 30 MHz, AC Power input port See clause 5.3.	PASS
FCC Part.209 15.225(d) RSS-GEN, 8.9 RSS-210, 4.3	Radiated emission of electromagnetic fields in the frequency range 9 kHz - 30 MHz The EUT complies with the limits. The margin to the limit was at least >20 dB at 13.560 MHz See clause 6.4.	PASS
FCC Part 15.209 15.225(d), 15.109 RSS-GEN, 8.9 RSS-210 4.31	Radiated emission of electromagnetic fields in the frequency range 30 – 1000 MHz The EUT complies with the limits. The margin to the limit was at least 4.31 dB at 61.740 MHz See clause 6.5.	PASS
FCC Part 15.225(a)(b)(c) RSS-210 Annex B.6	Transmitter spectrum mask The EUT complies with the limits. See clause 7.3.	PASS
FCC Part 15.225(a)(b)(c) RSS-210 Annex B.6	Frequency stability The EUT complies with the limits. See clause 9.3.	PASS
RSS-GEN, 6.7	Occupied bandwidth Occupied bandwidth shall be reported but there's no applicable limit.	PASS

5. CONDUCTED CONTINUOUS DISTURBANCES IN THE FREQUENCY-RANGE 0.15 TO 30 MHZ

Date of test:	June 2, 2026	Test location:	BUR 1
EUT Serial:	A4030-E: E827254FB3C A4131-E: OU42FB1FAD	Ambient temp:	20°C
Tested by:	Nahome Micheal Björn Utermöhl	Relative humidity:	44%
Test result:	Pass	Margin:	See section 5.3

5.1 Test set-up and test procedure

The test method is in accordance with ANSI C63.10-2020 section 6.2.

The EUT was connected to the power via Artificial Mains Networks AMN.

The EUT was placed on an insulating support 0.8 m above the floor, 0.4 m from the vertical reference ground plane (RGP) and 0.8 m from the AMN/ISN.

Overview sweeps were performed for each lead.

During the tests the EUT was operated according to the mode of operation mentioned in clause 3.5

5.2 Requirement

Limits for conducted emission from AC mains

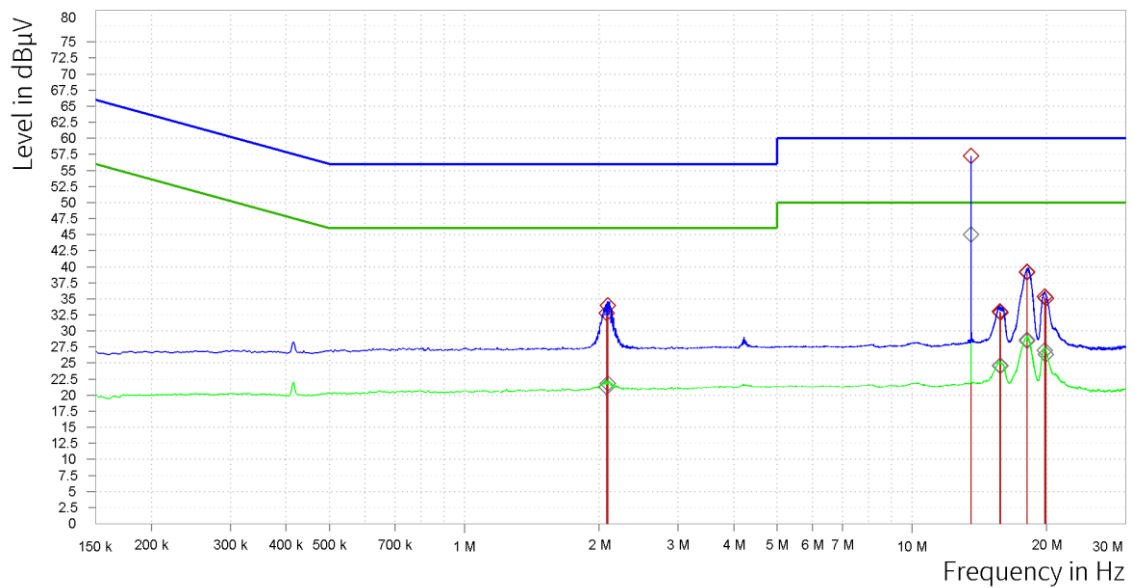
The EUT shall meet the limits for the standards.

Reference: 47 CFR §15.207

RSS-GEN, section 8.8 table 4

Frequency range [MHz]	Limits [dBμV]	
	Quasi-Peak	Average
0.15 – 0.50	66 – 56	56 – 46
0,50 – 5.00	56	46
5.00 – 30.0	60	50

5.3 Test results



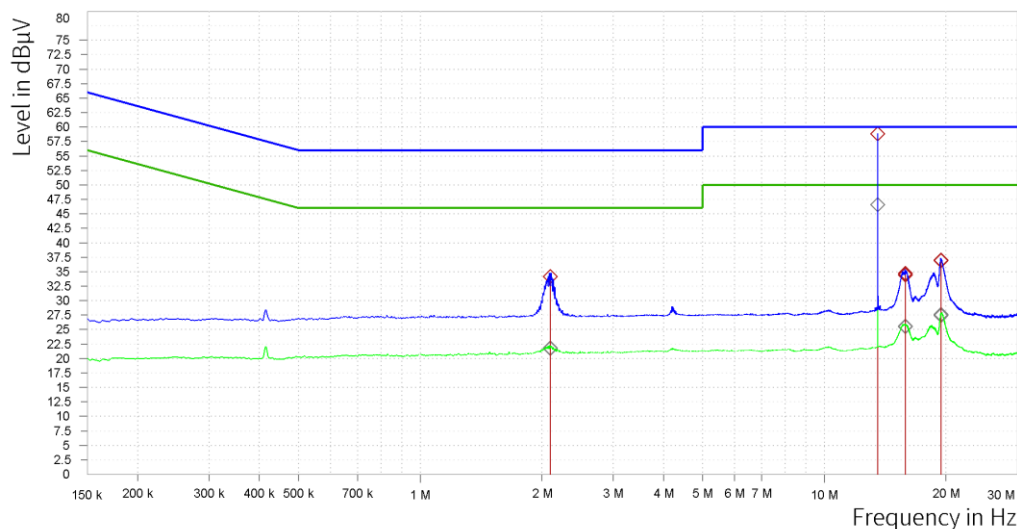
Diagram, Peak and Average overview sweep (A4131-E), 13.56MHz is fundamental carrier.

Measurement results, Average (A4131-E)

Frequency [MHz]	Level [dBμV]	Limit [dBμV]	Line L/N	Margin [dB]
2.092	21.82	46.00	L1	24.18
13.560	45.06	50.00	N	4.94
15.713	24.59	50.00	N	25.41
18.056	28.66	50.00	N	21.34
19.797	26.97	50.00	N	23.03

Measurement results, Quasi-peak (A4131-E)

Frequency [MHz]	Level [dBμV]	Limit [dBμV]	Line L/N	Margin [dB]
2.092	33.94	56.00	L1	22.06
13.560	57.26	60.00	N	2.74
15.713	33.04	60.00	N	26.96
18.056	39.23	60.00	N	20.77
19.797	35.39	60.00	N	24.61



Measurement results, Average (A4030-E)

Frequency [MHz]	Level [dBμV]	Limit [dBμV]	Line L/N	Margin [dB]
2.099	21.77	46.00	L1	24.23
13.560	46.62	50.00	N	3.38
15.853	25.58	50.00	N	24.42
19.435	27.59	50.00	N	22.41

Measurement results, Quasi-peak (A4030-E)

Frequency [MHz]	Level [dBμV]	Limit [dBμV]	Line L/N	Margin [dB]
2.099	34.12	56.00	L1	21.88
13.560	58.84	60.00	N	1.16
15.853	34.75	60.00	N	25.25
19.435	37.04	60.00	N	22.96

6. RADIATED RF EMISSION IN THE FREQUENCY-RANGE 0.009 MHz TO 1 GHz

Date of test:	January 9, 2026	Test location:	10m SAR
EUT Serial:	A4030-E: E827254FB3C A4131-E: OU42FB1FAD	Ambient temp:	21°C
Tested by:	Nahome Micheal Björn Utermöhl	Relative humidity:	20%
Test result:	Pass		

6.1 Test set-up and test procedure.

The test method is in accordance with ANSI C63.10 and ANSI C63.4

The EUT was set up in order to emit maximum disturbances.

The EUT was placed on an insulating support 0.8 m above the turntable which is part of the reference ground plane.

Overview sweeps were performed with the measurement receiver in max-hold mode and the peak detector activated.

6.2 Test conditions

Test set-up:

Test receiver set-up:

Preview test:

Final test:

Measuring distance:

Measuring angle:

Antenna

Height above ground plane:

orientation:

Type:

9 kHz to 30 MHz

Peak, RBW 200 Hz / 9 kHz. VBW 30 kHz

Quasi-Peak, RBW 200 Hz / 9 kHz

Average RBW 200 Hz / 9 kHz

10 m

0 – 359°

1 m

2 orthogonal axis

Loop

Test set-up:

Test receiver set-up:

Preview test:

Final test:

Measuring distance:

Measuring angle:

Antenna

Height above ground plane:

Polarisation:

Type:

30 MHz to 1000 MHz

Peak, RBW 120 kHz. VBW 1 MHz

Quasi-Peak, RBW 120 kHz

10 m

0 – 359°

1 – 4 m

Vertical and Horizontal

Bilog

6.3 Radiated Emission requirements

The EUT shall meet the limits for the standards.

Reference: 47 CFR §15.209, §15.109

RSS-gen section 8.9 table 4

Limits for general radiated emission FCC

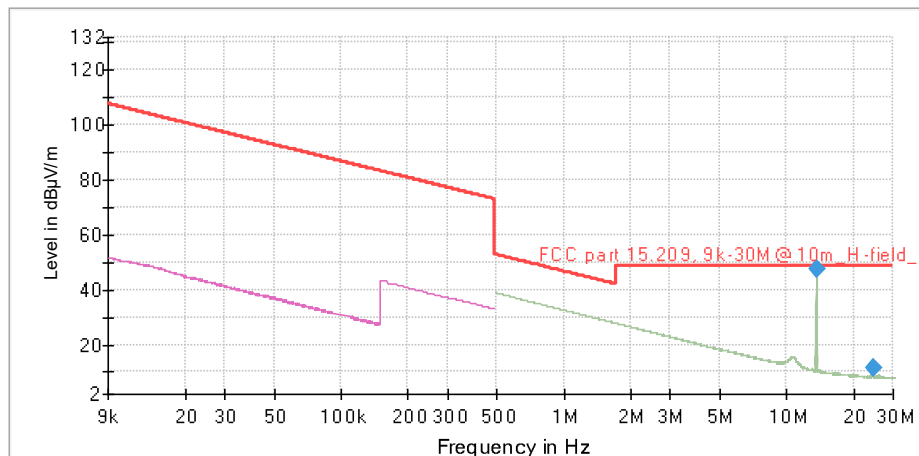
Frequency range [MHz]	Field strength at 3 m (dB μ V/m)	Field strength at 10 m (dB μ V/m)	Detector (dB μ V/m)
0.009 – 0.09	-	107.6 – 87.6	Average
0.09 – 0.110	-	87.6 – 85.9	Quasi Peak
0.110 – 0.490	-	85.9 – 72.9	Average
0.490 – 1.705	-	52.9 – 42.1	Quasi Peak
1.705 – 30	30	48.6	Quasi Peak
30 – 88	40.0	29.5	Quasi Peak
88 – 216	43.5	33.0	Quasi Peak
216 – 960	46.0	35.5	Quasi Peak
960 – 1000	54.0	43.5	Quasi Peak
Above 1000	54.0 / 74.0	-	Average / Peak

The values for each measurement distance are given using an extrapolation factor of 20 dB/decade above 30 MHz and 40 dB/decade below 30 MHz according to §15.31(f)(1), §15.31(f)(2) and RSS-GEN sections 6.4 and 6.5.

Limits for general radiated emission ISCED

Frequency range [MHz]	Field strength at 3 m (dB μ A/m <30MHz) (dB μ V/m >30MHz)	Field strength at 10 m (dB μ A/m <30MHz) (dB μ V/m >30MHz)	Detector (dB μ A/m <30MHz) (dB μ V/m >30MHz)
0.009 – 0.09	-	56.1 – 36.1	Average
0.09 – 0.110	-	36.1 – 34.35	Quasi Peak
0.110 – 0.490	-	34.35 – 21.38	Average
0.490 – 1.705	-	1.36 – (-9.47)	Quasi Peak
1.705 – 30	30	-2.86	Quasi Peak
30 – 88	40.0	29.5	Quasi Peak
88 – 216	43.5	33.0	Quasi Peak
216 – 960	46.0	35.5	Quasi Peak
960 – 1000	54.0	43.5	Quasi Peak
Above 1000	54.0 / 74.0	-	Average / Peak

6.4 Test results 9 kHz – 30 MHz



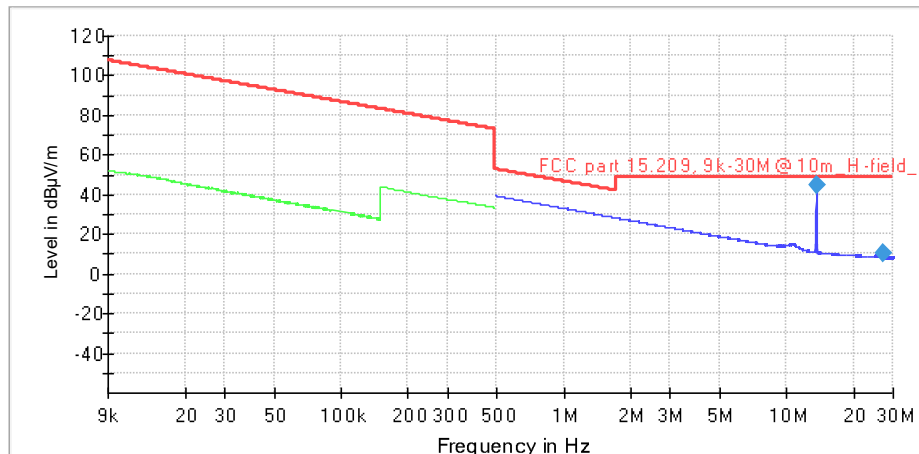
Diagram, Peak overview sweep, 0.009 – 30 MHz at 10 m distance. Model A4131-E, Z-orientation.

Measurement results, Quasi Peak FCC

Frequency [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Polarization H/V	Margin [dB]
13.560 ¹	47.72	48.7	V	0.98
24.624	11.64	48.7	H	37.06

¹) Fundamental carrier.

Result [dBμV/m] = Analyser reading [dBμV] + Antenna factor [1/m] – Amplifier gain [dB] + Cable loss [dB]



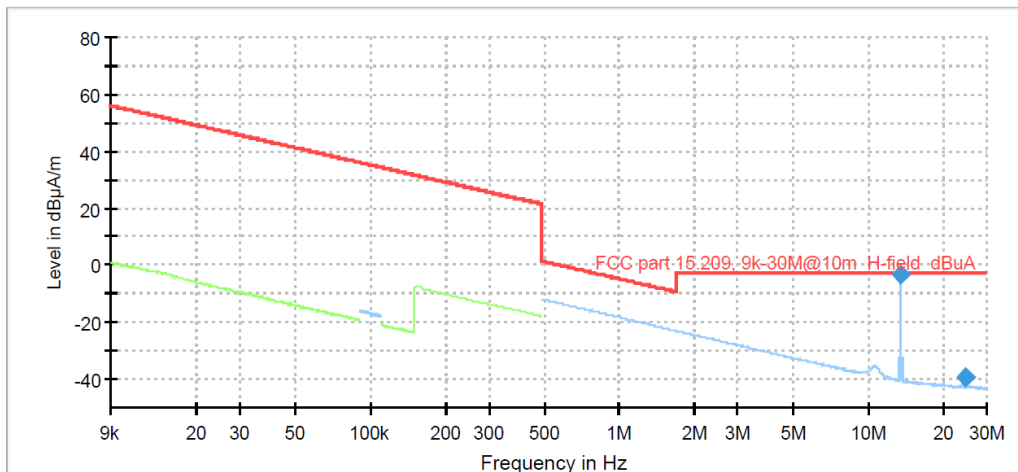
Diagram, Peak overview sweep, 0.009 – 30 MHz at 10 m distance. Model A4030-E, Y-orientation.

Measurement results, Quasi Peak FCC

Frequency [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Polarization H/V	Margin [dB]
13.560 ¹	44.5	48.7	V	4.2
27.121	10.14	48.7	V	38.56

¹) Fundamental carrier.

Result [dBμV/m] = Analyser reading [dBμV] + Antenna factor [1/m] – Amplifier gain [dB] + Cable loss [dB]



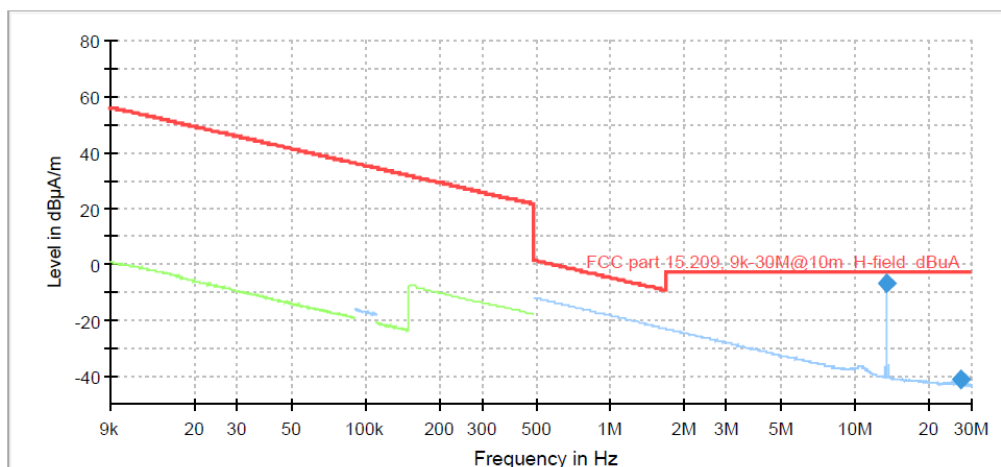
Diagram, Peak overview sweep, 0.009 – 30 MHz at 10 m distance. Model A4131-E, Z-orientation.

Measurement results, Quasi Peak ISD

Frequency [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Polarization H/V	Margin [dB]
13.560 ¹	-3.28	-2.86	V	0.42
24.624	-39.36	-2.86	H	36.50

¹) Fundamental carrier.

Result [dBμV/m] = Analyser reading [dBμV] + Antenna factor [1/m] – Amplifier gain [dB] + Cable loss [dB]



Diagram, Peak overview sweep, 0.009 – 30 MHz at 10 m distance. Model A4030-E, Y-orientation

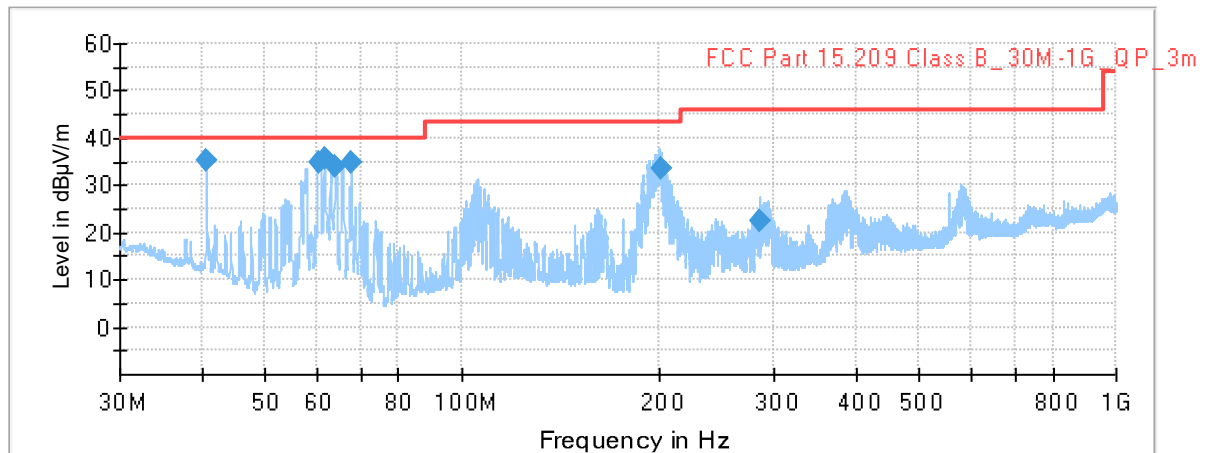
Measurement results, Quasi Peak ISD

Frequency [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Polarization H/V	Margin [dB]
13.560 ¹	-7.00	-2.86	V	4.14
27.121	-41.36	-2.86	V	38.50

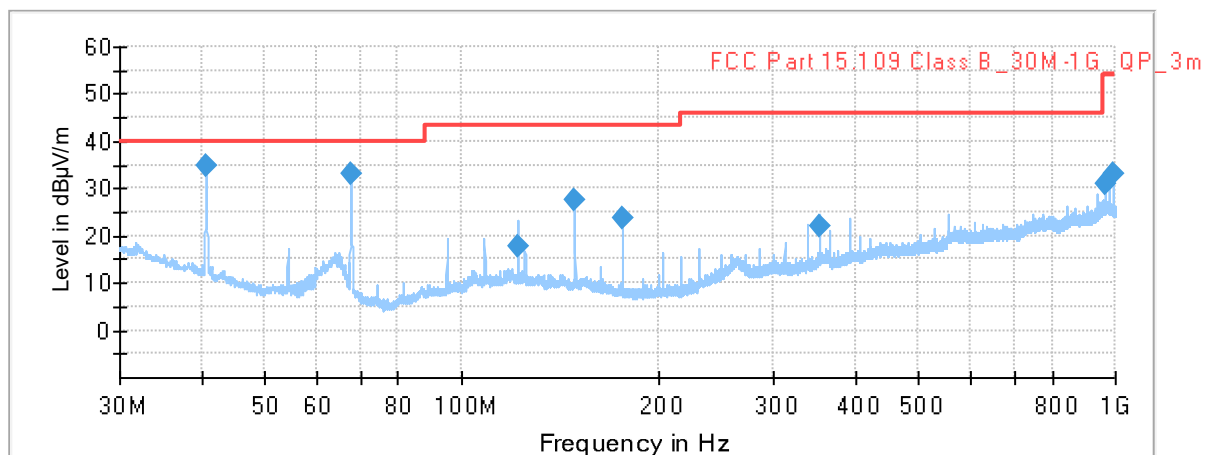
¹) Fundamental carrier.

Result [dBμV/m] = Analyser reading [dBμV] + Antenna factor [1/m] – Amplifier gain [dB] + Cable loss [dB]

6.5 Test results 30 MHz – 1000 MHz



Diagram, Peak overview sweep, 30 – 1000 MHz at 3m distance.
Model A4131-E, Z-orientation.



Diagram, Peak overview sweep, 30 – 1000 MHz at 3m distance.
Model A4030-E, Y-orientation.

Measurement results, Quasi Peak
Model A4131-E

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	Polarization H/V	Margin [dB]
40.680	35.41	40.00	V	4.59
60.420	34.64	40.00	V	5.36
61.740	35.69	40.00	V	4.31
64.110	33.89	40.00	V	6.11
67.800	35.01	40.00	V	4.99
201.300	33.57	43.52	V	9.95
284.760	22.23	46.02	V	23.79

Model A4030-E

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	Polarization H/V	Margin [dB]
40.680	34.80	40.00	V	5.20
67.800	33.21	40.00	V	6.79
122.040	17.94	43.52	V	25.58
149.160	27.66	43.52	V	15.86
176.280	23.90	43.52	H	19.62
352.560	22.13	46.02	V	23.89
962.760	30.98	53.98	H	23.00
989.880	33.07	53.98	H	20.91

All other measured disturbances have a margin of more than 20 dB to the limits.

Result [dB μ V/m] = Analyser reading [dB μ V] + Antenna factor [1/m] – Amplifier gain [dB] + Cable loss [dB]

7. MAXIMUM FIELD STRENGTH OF EMISSION

Date of test:	January 9, 2026	Test location:	10m SAR
EUT Serial:	A4030-E: E827254FB3C A4131-E: OU42FB1FAD	Ambient temp:	21°C
Tested by:	Nahome Micheal Björn Utermöhl	Relative humidity:	20%
Test result:	Pass	Margin:	See section 7.3

7.1 Test set-up and test procedure.

The test method is in accordance with ANSI C63.10.

Test set-up:

Test receiver set-up:

Preview test: Peak, RBW 9 kHz. VBW 30 kHz

Final test: Quasi-Peak, RBW 9 kHz

Measuring distance: 10 m

Measuring angle: 0 – 359°

Antenna

Height above ground plane: 1 m

orientation: 2 orthogonal axis

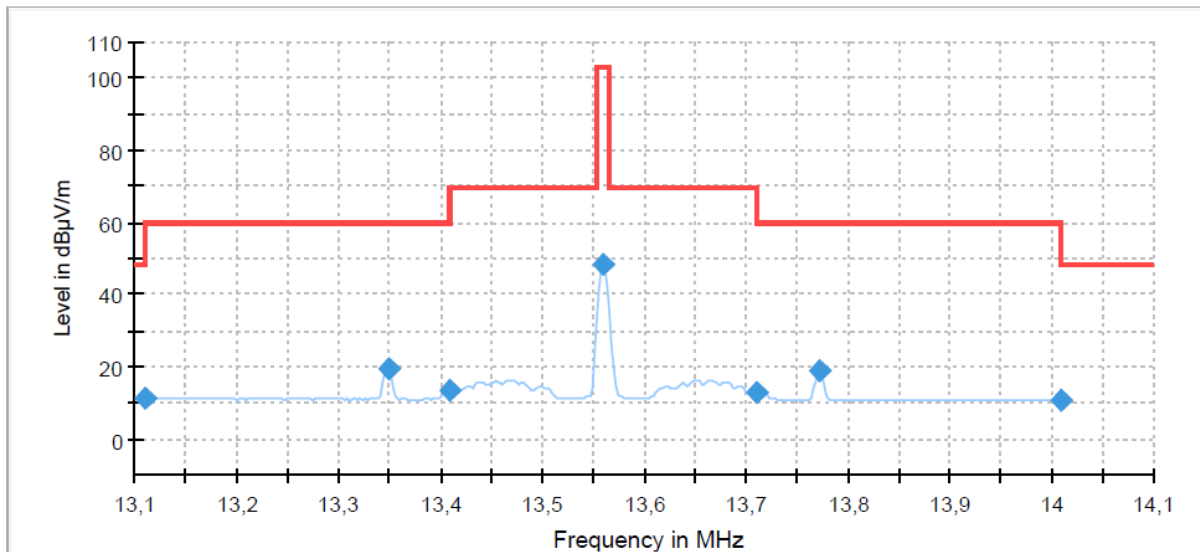
Type: Loop

7.2 Requirement

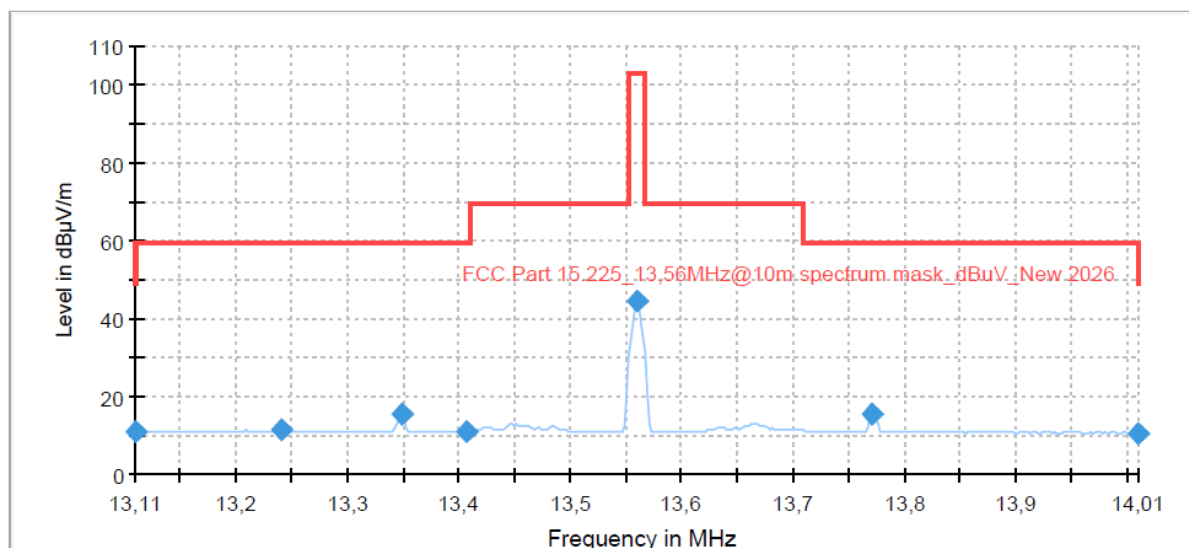
The field strength of any emission shall not exceed the following limits:

Frequency [MHz]	Field strength at 30 m [μV/m]	Field strength at 10 m [dBμV/m]	Field strength at 3 m [dBμV/m]
< 13.110	30	48.6	69.5
13.110 – 13.410	106	59.6	80.5
13.410 – 13.553	334	69.6	90.5
13.553 – 13.567	15,848	103.1	124.0
13.567 – 13.710	334	69.6	90.5
13.710 – 14.010	106	59.6	80.5
>14.010	30	48.6	69.5

7.3 Test result spectrum mask 13.110 – 14.010 MHz



Diagram, Peak overview sweep, at 10 m distance. Model A4131-E, Z-orientation.



Diagram, Peak overview sweep, at 10 m distance. Model A4030-E, Y-orientation.

8. OCCUPIED BANDWIDTH

Date of test:	January 15, 2026	Test location:	Wireless Center
EUT Serial:	A4030-E: E827254FB3C A4131-E: OU42FB1FAD	Ambient temp:	20°C
Tested by:	Nahome Micheal Björn Utermöhl	Relative humidity:	22%
Test result:	Pass	Margin:	See section 8.3

8.1 Test set-up and test procedure.

The test method is in accordance with ANSI C63.10 section 6.9.3 and RSS-GEN section 6.7

Spectrum analyser with occupied bandwidth measurement function is used to determine the occupied bandwidth.

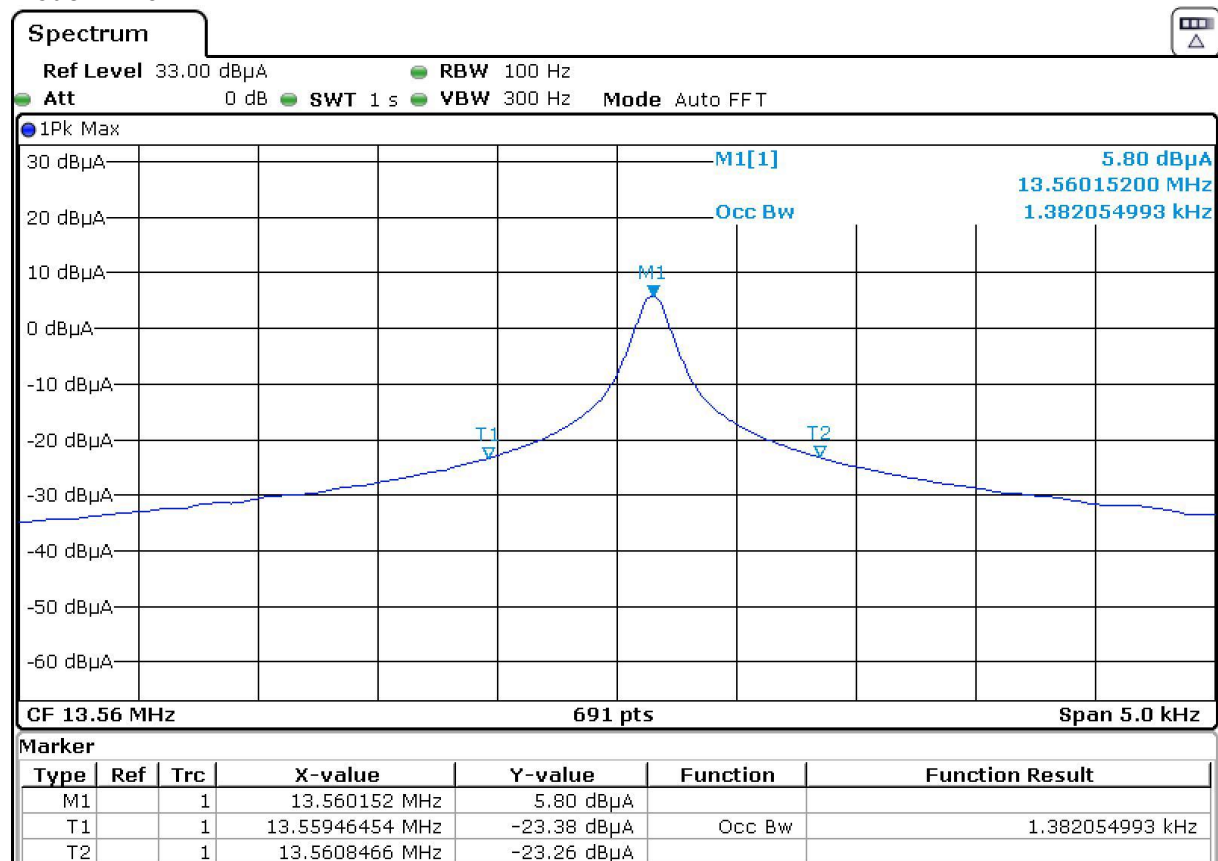
8.2 Test conditions

Detector: Peak
 RBW 1 – 5 % of span 300 Hz
 VBV 3 x RBW
 Span > OBW

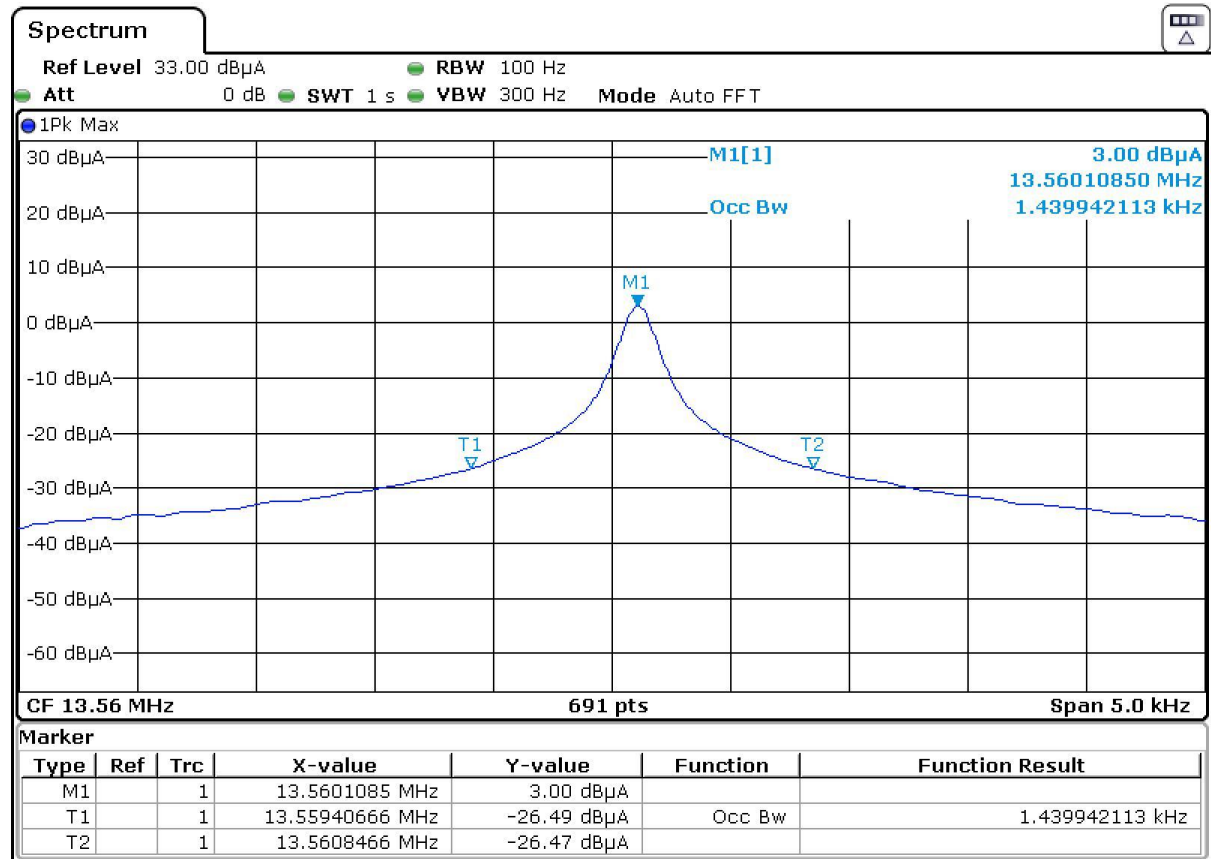
The EUT was set up in order to emit maximum disturbances.

8.3 Test results

Model A4131-E



Model A4030-E



9. FREQUENCY TOLERANCE OF CARRIER

Date of test:	January 15, 2026	Test location:	Wireless Center
EUT Serial:	A4030-E: E827254FB3C A4131-E: OU42FB1FAD	Ambient temp:	20°C
Tested by:	Nahome Micheal Björn Utermöhl	Relative humidity:	25%
Test result:	Pass	Margin:	See section 9.3

9.1 Test set-up and test procedure.

Test procedure is according to ANSI C63.10 section 6.8.

The EUT is place inside a temperature chamber and the antenna port is connected to spectrum analyser.

9.2 Requirement

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

9.3 Test result

Model A4131-E

Temp [°C]	Voltage	Frequency [MHz]	Frequency error [Hz]	Limit [±Hz]	Margin [Hz]
20	12V (PoE)	13.5601520	152.0	± 1356	1204

Model A4030-E

Temp [°C]	Voltage	Frequency [MHz]	Frequency error [Hz]	Limit [±Hz]	Margin [Hz]
20	12V (PoE)	13.5601520	152.0	± 1356	1204

Model A4131-E

Temp [°C]	f [MHz] Start up	f [MHz] 2 minutes	f [MHz] 5 minutes	f [MHz] 10 minutes	F error [Hz]	Limit [±Hz]	Margin [Hz]
65	13.5600941	13.5601085	13.5601158	13.5601230	+123.0	± 1356	1233.0
60	13.5601085	13.5601230	13.5601302	13.5601302	+130.2	± 1356	1225.8
50	13.5601013	13.5601085	13.5601085	13.5601158	+115.8	± 1356	1240.2
40	13.5601013	13.5601013	13.5601013	13.5601013	+101.3	± 1356	1254.7
30	13.5601230	13.5601158	13.5601158	13.5601158	+115.8	± 1356	1240.2
10	13.5601520	13.5601520	13.5601520	13.5601520	+152.0	± 1356	1204.0
0	13.5601447	13.5601520	13.5601520	13.5601520	+152.0	± 1356	1204.0
-10	13.5601158	13.5601302	13.5601375	13.5601375	+137.5	± 1356	1218.5
-20	13.5600579	13.5600868	13.5600941	13.5600941	+94.1	± 1356	1261.9
-30	13.5599141	13.5599349	13.5599678	13.5600072	-85.9	± 1356	1270.1
-40	13.5596671	13.5597685	13.5598046	13.5598408	-332.9	± 1356	1023.1

Model A4030-E

Temp [°C]	f [MHz] Start up	f [MHz] 2 minutes	f [MHz] 5 minutes	f [MHz] 10 minutes	F error [Hz]	Limit [±Hz]	Margin [Hz]
65	13.5601230	13.5601375	13.5601665	13.5601881	+188.1	± 1356	1167.9
60	13.5601447	13.5601520	13.5601664	13.5601881	+188.1	± 1356	1167.9
50	13.5601085	13.5601158	13.5601230	13.5601375	+137.5	± 1356	1218.5
40	13.5601085	13.5601085	13.5601158	13.5601230	+123.0	± 1356	1233.0
30	13.5601230	13.5601158	13.5601085	13.5601085	+123.0	± 1356	1233.0
10	13.5601592	13.5601520	13.5601447	13.5601375	+159.2	± 1356	1196.8
0	13.5601447	13.5601592	13.5601592	13.5601520	+159.2	± 1356	1196.8
-10	13.5601158	13.5601447	13.5601520	13.5601592	+159.2	± 1356	1196.8
-20	13.5600362	13.5601085	13.5601230	13.5601302	+130.2	± 1356	1225.8
-30	13.5599349	13.5600362	13.5600724	13.5600941	+94.1	± 1356	1261.9
-40	13.5598046	13.5599349	13.5600072	13.5600145	-195.4	± 1356	1160.9

10. TEST EQUIPMENT

10m SAR

Equipment type	Manufacturer	Model	Inv. No.	Last Cal. date	Cal. interval
Measurement software	Rohde & Schwarz	EMC32 - Version 11.60.00	--	--	--
Receiver	Rohde & Schwarz	ESW 44	33890	July – 2025	1 year
BiLog antenna	Rohde & Schwarz	TESEQ	34200	Oct – 2025	2 year
Loop antenna	EMCO	6502	8853	Apr – 2025	1 year
Pre Amplifier	SEMKO	AM1331	S7992	July – 2025	1 year
Coaxial cable	Suhner	G 03232 D-01	9598	Jan – 2025	1 year
Coaxial cable	Suhner	RG 214/U	8911	June – 2025	1 year
Coaxial cable	Qualwave	QA800-18-NN-7	39325	Sep – 2025	1 year
Coaxial cable	ROSENBERGER	LA5-S003-10000 (UFB293C)	39163	Oct – 2025	1 year
Coaxial cable	HUBER+SUHNER	SUCOFLEX 106	39122	Aug – 2025	1 year
Coaxial cable	SUHNER	RG 214/U	9798	Oct – 2025	1 year
Termo/Hygro	Vaisala	HMI41	31215	Aug – 2025	1 year

Wireless Center and 3m FAR

Equipment type	Manufacturer	Model	Inv. No.	Last Cal. date	Cal. interval
Measurement software	Rohde & Schwarz	Elektra V5.21	--	--	--
Measurement receiver	Rohde & Schwarz	FSW43	34390	July – 2025	1 year
BiLog antenna	Chase	CBL 6111	12474	Sep – 2025	1 year
Preamplifier	Sangus	AFS6-00101400-23-10P -6-S AFS44-12002400-32-10P -44	12335	July – 2025	1 year
Measurement cable	Huber & Suhner	Sucoflex 102	5191	April – 2025	1 year
Measurement cable	Huber & Suhner	Sucoflex 102	39138	April – 2025	1 year
Measurement cable	Huber + Suhner	Sucoflex 102	39136	April – 2025	1 year
Measurement cable	Huber & Suhner	Sucoflex 102	39135	April – 2025	1 year
Signal analyzer:	Rohde & Schwarz	FSV30	32594	July – 2025	1 year
Rubidium Referens	Pendulum	FTR-210R	35388	April – 2025	1 year
Temperature chamber:	Vötsch	VC4018	12282	June – 2025	1 year
Digital thermometer	Fluke	52	2483	Aug – 2025	1 year
Thermocouple	Pentronic	HF/D-30	380415	Sep – 2025	1 year
Termo/Hygro	Vaisala	HMI41	31215	Aug – 2025	1 year

Bur 1 (CE test chamber)

Equipment type	Manufacturer	Model	Inv. No.	Last Cal. date	Cal. interval
Measurement software	Rohde & Schwarz	EMC32 - Version 11.60.00	--	--	--
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	32589	July – 2025	1 year
TEST RECEIVER	Rohde & Schwarz	EPL1000	35146	July – 2025	1 year
8-Line ISN	TESEQ	ISN T8-CAT6	13132	July – 2025	1 year
Artificial Mains Network	Rohde & Schwarz	ENV216	33968	July – 2025	1 year
KOAXIAL CABEL	SUHNER	RG 223/U	9790	Jan – 2026	1 year
Termo/Hygro	Vaisala	HMI41	31215	Aug – 2025	1 year

11. MEASUREMENT UNCERTAINTY

Continuous conducted disturbances with AMN in the frequency range 9 kHz to 30 MHz ± 3.7 dB

Measurement uncertainty for radiated disturbance

Uncertainty for the frequency range 0.09 to 30 MHz at 10 m	± 3.2 dB
Uncertainty for the frequency range 30 to 1000 MHz at 3 m	± 5.1 dB
Uncertainty for the frequency range 30 to 1000 MHz at 10 m	± 5.0 dB
Uncertainty for the frequency range 1.0 to 18 GHz at 3 m	± 4.7 dB
Uncertainty for the frequency range 18 to 26 GHz at 3 m	± 4.8 dB
Uncertainty for the frequency range 26 to 40 GHz at 3 m	± 5.7 dB

Measurement uncertainty is calculated in accordance with CISPR 16-4-2:2011.

The measurement uncertainty is given with a confidence of 95 %.

12. TEST SET UP AND EUT PHOTOS

EUT photos are in separate document 2508043STO-107 Annex 1.

Test set up photos are in separate document 2508043STO-108 Annex 2.