|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **General** | | | | | |
| Laboratory name: |  | | | | |
| Laboratory location/adress: |  | | | | |
| Laboratory contact (email address): |  | | | | |
| Accreditation body: | Deutsche Akkreditierungsstelle GmbH (DAkkS) | | | | |
| File number: | PL- | |  |  | |
| Case number | | Phase |  | |
| Date of assessment: | Please select | | | | |
| Accreditation process: | Please select | | | | |
| Assessment type[[1]](#footnote-1): | Please select | | | | |
| **Details of the assessor** | | | | | |
| Name: |  | | | | |
| Status:[[2]](#footnote-2) | TA |  | | |  |
| **Scope of accreditation** (for each site if different) (standards covered by assessment, e.g. [RSS-102](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html) (SAR), [RSS-Gen](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08449.html), [RSS-247](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10971.html), etc.) | | | | | |
| **RSS-xxx** | | | | | |

**General Information:**

This checklist serves to ascertain the competence of accredited testing laboratories to fulfil the requirements of appropriate ISED[[3]](#footnote-3) standards for recognition in Canada.

The checklist corresponds to REC-LAB - Procedure for Recognition of Foreign Testing Laboratories, Revision 21, October 2021, published by ISED, Canada (<https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11383.html>)

**Notes in usage by the laboratory:**

The laboratory must enter the requested scope completely in the blue field.

**Notes in usage by the assessor:**

The assessor must completely verify the scope requested by the laboratory. Restrictions in scope must be documented.

If the requirements are not met, a comment (justification) is required.

There is no guarantee that the references/links inserted will lead to the desired Internet pages.

| **I. Scope of assessment** The laboratory shall possess or demonstrate access to appropriate Innovation, Science and Economic Development Canada (ISED) standards and measurement methods, consistent with their scope of accreditation | | | | |
| --- | --- | --- | --- | --- |
|  |  |  | 1 | Have all applicable Radio Standards Specifications (RSS) and Broadcasting Equipment Technical Standards (BETS) for the scope(s) of interest been assessed? |
| Comment | | |  | |
|  |  |  | 2a | Has the testing laboratory been assessed and found to be capable and competent to perform measurements in accordance with 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?*](https://standards.ieee.org/standard/C63_4-2014.html) |
| Comment | | |  | |
|  |  |  | 2b | Has the testing laboratory been assessed and found to be capable and competent to perform test site validation in accordance with ANSI C63.4-2014 amended per ANSI C63.4a-2017, [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*, Amendment 1: Test Site Validation](https://standards.ieee.org/standard/C63_4a-2017.html)? |
| Comment | | |  | |
|  |  |  | 2c | Has the testing laboratory been assessed and found to be capable and competent to perform measurements in accordance with ANSI C63.10-2013, [*American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices*](https://standards.ieee.org/standard/C63_10-2013.html)? |
| Comment | | |  | |
|  |  |  | 2d | Has the testing laboratory been assessed and found to be capable and competent to perform measurements in accordance with ANSI C63.26-2015, [*American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services*](https://standards.ieee.org/standard/C63_26-2015.html)? |
| Comment | | |  | |
|  |  |  | 2e | Has the testing laboratory been assessed and found to be capable and competent to perform measurements in accordance with ANSI C63.17-2013, [*American National Standard Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices*](https://standards.ieee.org/standard/C63_17-2013.html)? |
| Comment | | |  | |
|  |  |  | 2f | Has the testing laboratory been assessed and found to be capable and competent to perform measurements in accordance with IEC/IEEE 62209-1528, [*Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-worn wireless communication devices - Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)*](https://standards.ieee.org/standard/62209-1528-2020.html)? |
| Comment | | |  | |
|  |  |  | 3 | Has the latest issue of RSS-102, [*Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)*](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html), been assessed for the scope(s) of interest? |
| Comment | | |  | |
|  |  |  | 4 | Is the testing laboratory familiar with ISED Directorate of Regulatory Standards (DRS) Notices, Supplementary Procedures (SPRs) and accepted Federal Communications Commission (FCC) Knowledge Database (KDB) procedures, and is it capable of testing devices subject to said notices/procedures? |
| Comment | | |  | |
|  |  |  | 5 | Can the testing laboratory demonstrate access to all of the accepted supplementary procedures and notices published by ISED? |
| Comment | | |  | |
|  |  |  | 6 | Does the testing laboratory possess or can it demonstrate access to all ISED standards and any normative reference standards in their desired scope of assessment? |
| Comment | | |  | |
|  |  |  | 7 | Are all measurement software packages used by the testing laboratory (such as software for controlling the turntable and antenna height and/or software for controlling the measurement receiver) documented in the test report? |
| Comment | | |  | |
|  |  |  | 8 | Is the validated test volume large enough to encompass the Equipment Under Test (EUT)? |
| Comment | | |  | |
|  |  |  | 9 | Are Line Impedance Stabilization Networks (LISNs), filters, and isolation transformers, if used, properly installed? |
| Comment | | |  | |
|  |  |  | 10 | Are LISNs, filters, and isolation transformers bonded to the ground reference plane? |
| Comment | | |  | |
|  |  |  | 11 | Does the radiated emission test site(s) meet the site validation requirements of 5.4 of ANSI C63.4-2014 amended per ANSI C63.4a-2017, [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, Amendment 1: Test Site Validation](https://standards.ieee.org/standard/C63_4a-2017.html), for the frequency range of 30 MHz to 1 GHz? |
| Comment | | |  | |
|  |  |  | 12 | Does the radiated emission test site(s) meet the Site Voltage Standing Wave Ratio (*S*VSWR) site validation requirements of CISPR 16-1-4:2010, [*Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements*](https://webstore.iec.ch/publication/36), for the frequency range of 1 GHz to 18 GHz? |
| Comment | | |  | |
|  |  |  | 13 | Was the test site validation for performing radiated emissions measurements completed in the last three years from the date of the assessment? |
| Comment | | |  | |
|  |  |  | 14 | Does the testing laboratory have all of the appropriate test equipment to cover the required frequency range per the scope of accreditation for the measurements to be performed by the testing laboratory? |
| Comment | | |  | |

| **II. Emission tests** | | | | |
| --- | --- | --- | --- | --- |
|  |  |  | 15 | Are the AC power-line conducted emission tests performed in accordance with the applicable parts of the applicable RSS standards? |
| Comment | | |  | |
|  |  |  | 16a | Are the guidelines in [ANSI C63.4](https://standards.ieee.org/standard/C63_4-2014.html) followed for large EUTs? |
| Comment | | |  | |
|  |  |  | 16b | Are the guidelines in [ANSI C63.4](https://standards.ieee.org/standard/C63_4-2014.html) followed for in-situ measurements? |
| Comment | | |  | |
|  |  |  | 17 | Is the conducted emission test setup in accordance with [ANSI C63.4](https://standards.ieee.org/standard/C63_4-2014.html) with respect to the required separation between the EUT and any conducting surfaces?  (This question also applies for [ANSI C63.10](https://standards.ieee.org/standard/C63_10-2013.html); see 6.2.2 of [ANSI C63.10-2013](https://standards.ieee.org/standard/C63_10-2013.html), which refers to ANSI C63.4.) |
| Comment | | |  | |
|  |  |  | 18 | Is the conducted emission test setup in accordance with [ANSI C63.4](https://standards.ieee.org/standard/C63_4-2014.html) with respect to the vertical coupling plane dimensions?  (This question also applies for [ANSI C63.10](https://standards.ieee.org/standard/C63_10-2013.html); see 6.2.2 of [ANSI C63.10-2013](https://standards.ieee.org/standard/C63_10-2013.html), which refers to ANSI C63.4.) |
| Comment | | |  | |
|  |  |  | 19 | Is the EUT connected to one LISN and all the peripherals connected to other LISNs or to a separate LISN through a power strip (i.e. per [ANSI C63.4-2014](https://standards.ieee.org/standard/C63_4-2014.html))?   (This question also applies for [ANSI C63.10](https://standards.ieee.org/standard/C63_10-2013.html); see 6.2.2 of [ANSI C63.10-2013](https://standards.ieee.org/standard/C63_10-2013.html), which refers to ANSI C63.4.) |
| Comment | | |  | |
|  |  |  | 20a | Is the testing laboratory using any adaptors (e.g. power bars) connected to the EUT port of the LISN? |
| Comment | | |  | |
|  |  |  | 20b | If the answer to 20a. is Yes, have these adaptors been calibrated together with the LISN, and insertion loss accounted for in all corresponding test results? |
| Comment | | |  | |
|  |  |  | 21 | For the standards assessed, has the testing laboratory demonstrated its capability of performing measurements in the appropriate frequency range, with the correct detector, and using the correct bandwidth (resolution bandwidth and video bandwidth, as applicable)? |
| Comment | | |  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | 22 | Are the radiated emission tests performed in accordance with the proper standards? |
| Comment | | |  | |
|  |  |  | 23 | Were radiated emission tests observed, and is the radiated emission test setup in accordance with the proper standards? |
| Comment | | |  | |
|  |  |  | 24 | Does the radiated emission measurement represent the maximized cable configuration and worst-case mode of EUT operation? |
| Comment | | |  | |

| **III. Specific absorption rate (SAR)/localized power density (LPD) tests** | | | | |
| --- | --- | --- | --- | --- |
|  |  |  | 25a | Does the measurement system meet the standardized requirements in the referenced standards listed in I. Scope of assessment, above? |
| Comment | | |  | |
|  |  |  | 25b | When computational assessments are performed, does the software meet the normative requirements of IEC/IEEE 62704-1, [Determining the peak spatial-average specific absorption rate (SAR) in the human body from wireless communications devices, 30 MHz to 6 GHz - Part 1: General requirements for using the finite difference time-domain (FDTD) method for SAR calculations](https://webstore.iec.ch/publication/34411) / IEC/IEEE 62704-4, [Determining the peak spatial-average specific absorption rate (SAR) in the human body from wireless communication devices, 30 MHz to 6 GHz - Part 4: General requirements for using the finite element method for SAR calculations](https://webstore.iec.ch/publication/31850) for Finite-Difference Time-Domain and Finite Element Method applications respectively? |
| Comment | | |  | |
|  |  |  | 26 | Does the testing laboratory have the proper equipment (tissue simulating liquid, dipoles, vector network analyzer for dielectric measurements, etc.) to conduct the assessment in accordance with the latest version of IEC/IEEE SAR-related standards as defined in 2f.? |
| Comment | | |  | |
|  |  |  | 27 | Was the measurement system or computational software validated in accordance with the proper standards and at the proper intervals (annually, after probe calibration, etc.) and is it being tracked? |
| Comment | | |  | |
|  |  |  | 28 | Are the measurements or computations performed in accordance with the proper standards (including dielectric measurements, system checks, SAR evaluation, LPD, etc.)? |
| Comment | | |  | |
|  |  |  | 29 | Is the LPD assessment conducted in accordance with SPR-003, [*Supplementary Procedure for Assessing Radio Frequency Exposure Compliance of Portable Devices Operating in the 60 GHz Frequency Band (57-71 GHz)*](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11588.html)? |
| Comment | | |  | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **IV. Radio frequency (RF) exposure evaluation and nerve stimulation test** | | | | | |
|  |  |  | 30a | Does the testing laboratory have the proper equipment to test devices under the scope of IEEE C95.3-2021, [*IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz to 300 GHz*](https://standards.ieee.org/standard/C95_3-2021.html)? |
| Comment | | |  | |
|  |  |  | 30b | When computational assessments are performed, does the software meet the requirements of the latest versions of [RSS-102](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html) and related SPRs? |
| Comment | | |  | |
|  |  |  | 31 | Are the RF exposure evaluations conducted in accordance with [IEEE C95.3](https://standards.ieee.org/standard/C95_3-2021.html)? |
| Comment | | |  | |
|  |  |  | 32 | Does the testing laboratory have the proper equipment to conduct the assessment in accordance with the latest version of SPR-002, [Supplementary Procedure for Assessing Compliance with RSS-102 Nerve Stimulation Exposure Limits](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11198.html)? |
| Comment | | |  | |
|  |  |  | 33 | Is the nerve stimulation assessment conducted in accordance with the latest version of [SPR-002](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11198.html)? |
| Comment | | |  | |

| **V. Test reports** Assessor should request to review several sample test reports for various types of products. | | | | | |
| --- | --- | --- | --- | --- | --- |
|  |  |  | 34 | Have several sample test reports for various types of products been reviewed for accuracy? |
| Comment | | |  | |
|  |  |  | 35 | Does each of the test reports contain all the required information based on the RSS being assessed (e.g. reporting requirements of RSS-Gen, [*General Requirements for Compliance of Radio Apparatus*](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08449.html), or [RSS-102](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html))? |
| Comment | | |  | |
|  |  |  | 36 | Does each of the test reports reference the standard used and specify any deviations? |
| Comment | | |  | |
|  |  |  | 37 | Is the rationale for arranging the EUT clearly stated, and are the components of the EUT system clearly identified? |
| Comment | | |  | |
|  |  |  | 38 | Does each of the test reports include photographs or detailed sketches of the EUT configuration? |
| Comment | | |  | |
|  |  |  | 39 | Does the measurement report include a sample calculation with all conversion and correction factors used? |
| Comment | | |  | |
|  |  |  | 40 | Does the testing laboratory use external resources/subcontractors to perform testing and, if so, do they have procedures in place to ensure that the external resources/subcontractors are properly accredited and ISED-recognized? |
| Comment | | |  | |
|  |  |  | 41 | If external resources/subcontractors are used to perform testing, do the test reports clearly identify the work performed by the external resources/subcontractors and the results of the testing?   Note: External resources/subcontractors must be from an ISED-recognized testing laboratory. |
| Comment | | |  | |

| **VI. Personnel competency** The following is a list of general or lead-in questions, which are intended to be used as a guide to assess competency of laboratory personnel. Additional specific questions should be used to determine the technical competency of the personnel performing the measurement. | | | | | |
| --- | --- | --- | --- | --- | --- |
|  |  |  | 42 | Are laboratory personnel able to obtain recent ISED standards and appropriate test procedures? |
| Comment | | |  | |
|  |  |  | 43 | Have all laboratory personnel responsible for testing been able to demonstrate performing an assessment of an applicable device? |
| Comment | | |  | |
|  |  |  | 44a | Do the test personnel know how to determine if an emission is from the EUT or is an ambient signal? (Note that ambient signals can also exist inside a semi-anechoic chamber, for example from a faulty bulkhead or a noisy LED lighting fixture.) |
| Comment | | |  | |
|  |  |  | 44b | Do the test personnel know how to handle an emission that is close to, or coincident with, an ambient signal? |
| Comment | | |  | |
|  |  |  |  | *If the test site validation is performed by the testing laboratory, arrange for one of the laboratory personnel, at each type of site, to replicate at least three frequency points for normalized site attenuation (NSA) and at least three test points for the SVSWR. Select frequencies from previous data that have both low and high deviations from the NSA and SVSWR.* |
| 45a | Arrangements have been made for one of the laboratory personnel, at each type of site, to replicate at least three frequency points for NSA and at least three test points for the SVSWR. |
| Comment | | |  | |
|  |  |  | 45b | The test site validation is NOT performed by the testing laboratory BUT the test site validation (NSA and SVSWR) report and measurements have been performed by a third party entity that is ISO-accredited. |
| Comment | | |  | |
| **SAR/LPD laboratory personnel** | | | | | |
|  |  |  | 46 | Have the laboratory personnel responsible for testing been able to demonstrate performing a SAR/LPD measurement on an applicable device? |
| Comment | | |  | |
|  |  |  | 47 | Are the test personnel knowledgeable about the measurement procedures and requirements in [RSS-102](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html) and referenced standards, DRS Notices, SPRs and FCC KDBs? |
| Comment | | |  | |
|  |  |  | 48 | Are the test personnel knowledgeable about the SAR exemption limits and test reduction requirements in [RSS-102](https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html) and referenced standards, DRS Notices, SPRs and FCC KDBs? |
| Comment | | |  | |

|  |
| --- |
| **Summary, remarks** |
|  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Report was prepared as an annex to the Assessment Report from DAkkS in accordance with EN ISO/IEC 17025:[[4]](#footnote-4)** | | | | | |
| Place: |  | Date: | Please select | Signed*[[5]](#footnote-5) Name Assessor*: |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Report reviewed by the case manager:** | | | |  | | |
| Place: |  | Date: | Please select | | Signed *case Manager*: |  |

1. Under assessment type, the assessment technique is to be indicated, whereby several assessment types can be used in the context of an assessment. Please select the applicable element or combination of elements from the following options to indicate the type of assessment: On-site assessment / Remote assessment / Witness audit (on-site) / Witness audit (remote) / Witness examination / Document review / Other assessment activity (please specify if necessary) [↑](#footnote-ref-1)
2. Status in the assessment team; TA=Technical Assessor [↑](#footnote-ref-2)
3. ISED: Innovation, Science and Economic Development Canada [↑](#footnote-ref-3)
4. The assessment of fulfilment the requirements and recommendations for accreditation are documented in the assessment report to the EN ISO/IEC 17025. [↑](#footnote-ref-4)
5. This report was prepared personally by date Please select. [↑](#footnote-ref-5)