

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

CTC advanced GmbH

Untertürkheimer Straße 6-10, 66117 Saarbrücken

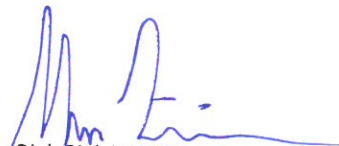
is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields:

Telecommunication (TC) and Electromagnetic Compatibility (EMC) for Canadian Standards

The accreditation certificate shall only apply in connection with the notice of accreditation of 11.01.2019 with the accreditation number D-PL-12076-01 and is valid until 21.04.2021. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 7 pages.

Registration number of the certificate: **D-PL-12076-01-04**

Frankfurt am Main, 11.01.2019


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The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkKS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkKS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkKS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:

EA: www.european-accreditation.org

ILAC: www.ilac.org

IAF: www.iaf.nu

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-12076-01-04 according to DIN EN ISO/IEC 17025:2005

Period of validity: 11.01.2019 to 21.04.2021 Date of issue: 31.01.2019

Holder of certificate:

CTC advanced GmbH
Untertürkheimer Straße 6-10, 66117 Saarbrücken

Tests in the fields:

Telecommunication (TC) and Electromagnetic Compatibility (EMC) for Canadian Standards

Abbreviations used: see last page

| Technical field | Standard / in house procedure / Version | Title of standard or in house procedure (deviations / modifications of standard) | Test area / reductions |
|--|--|--|------------------------|
| Electromagnetic Compatibility (EMC) | | | |
| EMC | ICES – 001, Issue 4, June 2006 Updated in Nov 2014 | Industrial, Scientific and Medical (ISM) Radio Frequency Generators | |
| EMC | ICES – 002, Issue 5, August 2009 Updated in Nov 2014 | Spark Ignition Systems of Vehicles and Other Devices Equipped with Internal Combustion Engines | |
| EMC | ICES – 002, Issue 6, March 2013, Updated in Nov 2014, Updated in Feb 2017 | Vehicles, Boats and other Devices Propelled by an internal Combustion Engine, Electrical Means or Both | |
| EMC | ICES – 003, Issue 6, January 2016 Updated in April 2017 | Information Technology Equipment (Including Digital Apparatus) — Limits and Methods of Measurement | |
| EMC | ICES – 004, Issue 4, June 3 2013 | Alternating Current High Voltage Power Systems | |

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|------------------------------------|---|--|-------------------------------|
| EMC | ICES – 005, Issue 3, May 2009 Issue 4, (Lighting Equipment), December 2015 | Radio Frequency Lighting Devices | |
| EMC | ICES – 006, Issue 3, July 2018 | AC Wire Carrier Current Devices (Unintentional Radiators) | |
| EMC | ICES-008, Issue 1, June 2015 | Cable Distribution Networks | |
| Radio Equipment and Systems | | | |
| TC | BETS-1, Issue 1, November 1996 | Technical Standards and Requirements for Low Power Announce Transmitters in the Frequency Bands 525 – 1,705 kHz and 88-107.5 MHz | |
| TC | BETS-3, Issue 1, November 1996 | Technical Standards and Requirements for Radio Apparatus that Form Part of a Master Antenna Television (MATV) Broadcasting Undertaking | |
| TC | BETS-4, Issue 1, November 1996 | Technical Standards and Requirements for Television Broadcasting Transmitters | |
| TC | BETS-5, Issue 1, November 1996 | Technical Standards and Requirements for AM Broadcasting Transmitters | |
| TC | BETS-6, Issue 2, August 2005 | Technical Standards and Requirements for FM Broadcasting Transmitters | |
| TC | BETS-7, Issue 3, March 2015 | Technical Standards and Requirements for Radio Apparatus Capable of Receiving Broadcasting | |
| TC | BETS-8, Issue 1, November 1996 | Technical Standards and Requirements for FM Transmitters Operating in Small Remote Communities | |
| TC | BETS-9, Issue 1, November 1996 | Technical Standards and Requirements for Television Transmitters Operating in Small Remote Communities | |
| TC | BETS-11, Issue 1, November 1996 | Technical Requirements Respecting the Identification of Broadcasting Stations | |

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|------------------------|---|--|-------------------------------|
| TC | CS-03, Issue 09, Amendment 5 March 2016 | Compliance Specification for Terminal Equipment, Terminal Systems, Network Protection Devices, Connection Arrangements and Hearing Aids Compatibility | |
| TC | RSS-Gen, Issue 5, April 2018 | General Requirements for Compliance of radio apparatus | |
| TC | RSS – 102, Issue5, March 2015 SPR-002, Issue 1, September 2016 | Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) Supplementary Procedure for Assessing Compliance with RSS-102 Nerve Stimulation Exposure Limits | |
| TC | RSS-111, Issue 5, September 2014 | Broadband Public Safety Equipment Operating in the Band 4940-4990 MHz | |
| TC | RSS - 112, Issue 1, February 2008 | Land Mobile and Fixed Equipment Operating in the Band 1670-1675 MHz | |
| TC | RSS – 117, Issue 3, January 2016 | Land and Coast Station Transmitters Operating in the 200 – 535 kHz Band | |
| TC | RSS – 119, Issue 12, May 2015 | Land Mobile and Fixed Equipment Operating in the Frequency Range 27.41 – 960 MHz | |
| TC | RSS – 123, Issue 3, February 2015 | Licensed Low-Power Radio Apparatus | |
| TC | RSS – 125, Issue 2, Revision 1, March 2000 | Land Mobile and Fixed Radio Transmitters and Receivers, 1.705 to 50.0 MHz, Primarily Amplitude Modulated | |
| TC | RSS-127, Issue 1, August 2009 | Air-Ground Equipment Operating in the Bands 849-851 MHz and 894-896 MHz | |
| TC | RSS-130, Issue 1, October 2013 | Mobile Broadband Services (MBS) Equipment Operating in the Frequency Bands 698-756 MHz and 777-787 MHz | |

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| TC | RSS – 131, Issue 3, January 2017 | Zone Enhancers for the Land Mobile Service | |
| TC | RSS – 132, Issue 3, January 2013 | Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz | |
| TC | RSS – 133, Issue 6, Issue 6, January 2013 Updated January 2018 Amendment 2018 | 2 GHz Personal Communications Services | |
| TC | RSS – 134, Issue 2, February 2016 | 900 MHz Narrowband Personal Communications Services | |
| TC | RSS – 135, Issue 2, June 2009 | Digital Scanner Receivers | |
| TC | RSS – 137, Issue 2, February 2009 | Location and Monitoring Service in the band 902-928 MHz | |
| TC | RSS – 139, Issue 3, July 2015 | Advanced Wireless Services Equipment operating in the Bands 1710 – 1780 MHz and 2110 – 2180 MHz | |
| TC | RSS – 140, Issue 1, April 2018 | Equipment Operating in the Public Safety Broadband Frequency Bands 758-768 MHz and 788-798 MHz | |
| TC | RSS – 141, Issue 2, June 2010 | Aeronautical Radio communication Equipment in the Frequency Band 117.975-137 MHz | |
| TC | RSS-142, Issue 5, April 2013 | Narrowband Multipoint Communication Systems in the Bands 1429.5- 1432 MHz | |
| TC | RSS-170, Issue 3, July 2015 | Mobile Earth Stations (MESs) and Ancillary Terrestrial Component (ATC) Equipment Operating in the Mobile-Satellite Service (MSS) Bands | |

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|-----------------|---|---|------------------------|
| TC | RSS – 181, Issue 1, April 1971, Amendment July 1987 | Coast and Ship Station Single Sideband Radiotelephone Transmitters and Receivers Operating in the 1605 – 28000 kHz Band | |
| TC | RSS – 182, Issue 5, January 2012 | Maritime Radio Transmitters and Receivers in the Band 156 – 162.5 MHz | |
| TC | RSS-191, Issue 3, April 2008 | Local Multipoint Communication Systems in the Band 25.35-28.35 GHz; Point-to-Point and Point-to-Multipoint Broadband Communication Systems in the Bands 24.25-24.45 GHz and 25.05-25.25 GHz; and Point-to-Multipoint Broadband Communications in the Band 38.6-40.0 GHz | |
| TC | RSS-192, Issue 3, January 2008 | Fixed Wireless Access Equipment Operating in the Band 3450-3650 MHz | |
| TC | RSS – 194, Issue 1, October 2007 | Fixed Wireless Access Equipment Operating in the Band 953-960 MHz | |
| TC | RSS – 195, Issue 2, April 2014 | Wireless Communications Service Equipment Operating in the Bands 2305-2320 MHz and 2345-2360 MHz | |
| TC | RSS - 196, Issue 1, March 2010 | Point-to-Multipoint Broadband Equipment Operating in the Bands 512-608 MHz and 614-698 MHz for Rural Remote Broadband Systems (RRBS) (TV Channels 21 to 51) | |
| TC | RSS -197, Issue 1, February 2010 | Wireless Broadband Access Equipment Operating in the Band 3650-3700 MHz | |
| TC | RSS-199, Issue 3, December 2016 | Broadband Radio Service (BRS) Equipment Operating in the Band 2500–2690 MHz | |
| TC | RSS – 210, Issue 9, August 2016 Amendment November 2017 | Licence-exempt Radio Apparatus(All Frequency Bands): Category I Equipment | |

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| TC | RSS-211, Issue 1, March 2015 | Level Probing Radar Equipment | |
| TC | RSS – 213, Issue 3, March 2015 | 2 GHz Licence-Exempt Personal Communications Services (LE-PCS) Devices | |
| TC | RSS – 215, Issue 2, June 2009 | Analogue Scanner Receivers | |
| TC | RSS-216, Issue 2, January 2016 | Wireless Power Transfer Devices | |
| TC | RSS – 220, Issue 1, March 2009 Amendment July 2018 | Devices Using Ultra – Wideband (UWB) Technology | |
| TC | RSS – 222, Issue 1, February 2015 | White Space Devices (WSDs) | |
| TC | RSS – 236, Issue 1, September 2012 | General Radio Service Equipment Operating in the Band 26.960 to 27.410 MHz (Citizens Band) | |
| TC | RSS 238, Issue 1, July 2013 | Shipborne Radar in the 2900-3100 MHz and 9225-9500 MHz Bands | |
| TC | RSS – 243, Issue 3, February 2010 | Active Medical Implants Operating in the 401-406 MHz Band | |
| TC | RSS 244, Issue 1, June 2013 | Medical Devices Operating in the Band 413-457 MHz | |
| TC | RSS-247, Issue 2, February 2017 | Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices | |
| TC | RSS -251 Issue 2, July 2018 | Field Disturbance Sensors in the Bands 46.7-46.9 GHz (Vehicular Radar) and 76-77 GHz (Vehicular and Airport Fixed Radar) | |

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| TC | RSS-252 — Issue 1 September 2017 | Intelligent Transportation Systems — Dedicated Short Range Communications (DSRC) — On-Board Unit (OBU) | |
| TC | RSS-287, Issue 2, March 2014 | Emergency Position Indicating Radio Beacons (EPIRB), Emergency Locator Transmitters (ELT), Personal Locator Beacons (PLB), and Maritime Survivor Locator Devices (MSLD) | |
| TC | RSS – 288, Issue 1, January 2012 | Global Maritime Distress and Safety System (GMDSS) | |
| TC | RSS – 310, Issue 4, July 2015 | Licence-exempt Radio Apparatus (All Frequency Bands): Category II Equipment | |
| Causing Equipment Standards | | | |
| TC | ICES – GEN, Issue 1, July 2018 | General Requirements for Compliance of Interference-Causing Equipment | |

Abbreviations used:

RSS Radio Standards Specification
IEC International Electrotechnical Commission
EMC Electromagnetic Compatibility
TC Telecommunication