

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-12076-01-05 according to DIN EN ISO/IEC 17025:2005

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

Holder of certificate:

CTC advanced GmbH
Untertürkheimer Straße 6-10, 66117 Saarbrücken

Tests in the fields:

Telecommunication (FCC Requirements)

| Section | Scope | Test Method(s) | Frequency (max. assessed) |
|---------|---|---|---------------------------|
| USA | Unintentional Radiators (FCC Part 15, Subpart B) | ANSI C 63.4-2014 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 | 40 GHz |
| USA | Industrial, Scientific, and Medical Equipment (FCC Part 18) • Consumer ISM equipment | FCC MP-5:1986-02 FCC Methods of Measurements of Radio Noise Emissions from Industrial, Scientific, and Medical Equipment | 325 GHz |
| USA | Intentional Radiators (FCC Part 15 Subpart C) | ANSI C 63.10-2013 American National Standard for Testing of Unlicensed Wireless Devices | 231 GHz |

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|---------|--|--|---------------------------|
| USA | <p>UPCS (FCC Part 15, Subpart D)</p> <ul style="list-style-type: none"> Unlicensed Personal Communication Systems devices | <p>ANSI C 63.17-2013</p> <p>American National Standard - Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices</p> | 40 GHz |
| USA | <p>U-NII without DFS Intentional Radiators (FCC Part 15, Subpart E)</p> <ul style="list-style-type: none"> Unlicensed National Information Infrastructure Devices (U-NII Devices without DFS) | <p>ANSI C 63.10-2013</p> <p>American National Standard for Testing of Unlicensed Wireless Devices</p> <p>in combination with KDB Publication 789033</p> | 40 GHz |
| USA | <p>U-NII with DFS Intentional Radiators (FCC Part 15, Subpart E)</p> <ul style="list-style-type: none"> Unlicensed National Information Infrastructure (U-NII) Devices with Dynamic Frequency Selection (DFS) | <p>FCC KDB Publication 905462 D02</p> <p>UNII DFS Compliance Procedures New Rules v02 (April 8, 2016)</p> | 40 GHz |
| USA | <p>UWB Intentional Radiators (FCC Part 15, Subpart F)</p> <ul style="list-style-type: none"> Ultra-wideband Operation | <p>ANSI C 63.10-2013</p> <p>American National Standard for Testing of Unlicensed Wireless Devices</p> | 200 GHz |
| USA | <p>BPL Intentional Radiators (FCC Part 15, Subpart G)</p> <ul style="list-style-type: none"> Access Broadband over Power Line (Access BPL) | <p>ANSI C 63.10-2013</p> <p>American National Standard for Testing of Unlicensed Wireless Devices</p> | 40 GHz |

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| USA | White Space Device Intentional Radiators (FCC Part 15, Subpart H) <ul style="list-style-type: none"> White Space Devices | ANSI C 63.10-2013 American National Standard for Testing of Unlicensed Wireless Devices | 40 GHz |
| USA | Commercial Mobile Services (FCC Licensed Radio Service Equipment) <ul style="list-style-type: none"> Part 22 (cellular) Part 24 Part 25 (below 3 GHz) Part 27 | ANSI/TIA-603-E-2016 TIA-102.CAAA-E-2016 ANSI C63.26-2015 in combination with KDB Publication 971168 | 200 GHz |
| USA | General Mobile Radio Services (FCC Licensed Radio Service Equipment) <ul style="list-style-type: none"> Part 22 (non-cellular) Part 90 (below 3 GHz) Part 95 Part 97 (below 3 GHz) Part 101(below 3 GHz) | ANSI/TIA-603-E-2016 TIA-102.CAAA-E-2016 ANSI C63.26-2015 | 200 GHz |
| USA | Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment) <ul style="list-style-type: none"> Part 96 | ANSI/TIA-603-E-2016 TIA-102.CAAA-E-2016 ANSI C63.26-2015 in combination with KDB Publication 971168 and 940660 | 200 GHz |
| USA | Maritime and Aviation Radio Services (FCC Licensed Radio Service Equipment) <ul style="list-style-type: none"> Part 80 Part 87 | ANSI/TIA-603-E-2016 ANSI C63.26-2015 | 200 GHz |

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| USA | <p>Microwave and Millimeter Bands Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> • Part 25 • Part 30 • Part 74 • Part 90 (M DSRC, Y, Z) • Part 95 (M and L) • Part 101 | <p>ANSI/TIA-603-E-2016 TIA-102.CAAA-E-2016 ANSI C63.26-2015</p> <p>in combination with KDB Publication 653005</p> | 200 GHz |
| USA | <p>Broadcast Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> • Part 73 • Part 74 (below 3 GHz) | <p>ANSI/TIA-603-E-2016 TIA-102.CAAA-E-2016 ANSI C63.26-2015</p> | 200 GHz |
| USA | <p>RF Exposure</p> <ul style="list-style-type: none"> • Devices subject to SAR requirements | <p>IEEE Std 1528™-2013</p> <p>IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques</p> <p>in combination with KDB Publication 865664 and in combination with KDB Publication 447498</p> | 6 GHz |
| USA | <p>Hearing Aid Compatibility (Part 20)</p> <ul style="list-style-type: none"> • HAC for Commercial mobile services | <p>ANSI C 63.19-2011</p> <p>American National Standard for Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids</p> | 6 GHz |

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| USA | Signal Boosters (Part 20) <ul style="list-style-type: none"> • Wideband Consumer signal boosters • Provider-specific signal boosters • Industrial signal boosters Signal Boosters (Section 90.219) | ANSI C63.26-2015 in combination with KDB Publication 935210 D03, D04 and D05 | 200 GHz |