

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-PL-12140-01-02 according to DIN EN ISO/IEC 17025:2018

**Valid from: 2019.09.12**

Date of issue: 2019.09.12

Holder of certificate:

**7layers GmbH**  
**Borsigstraße 11, 40880 Ratingen**

Tests in the fields:

**Electromagnetic Compatibility and Telecommunication (FCC Requirements)**

Section	Scope	Test Methods	Frequency (max. assessed)
<b>Electromagnetic Compatibility (EMC) and Radio Equipment and Systems</b>			
EMC	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  Stand alone or in combination with:  Unintentional Radiators (FCC Part 15, Subpart B)	
EMC	FCC MP-5:1986-02	FCC Methods of Measurements of Radio Noise Emissions from Industrial, Scientific, and Medical Equipment  Stand alone or in combination with:  CFR 47 FCC Part 18, Industrial Scientific and Medical Equipment ◦ Consumer ISM equipment	

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TK	ANSI C 63.10-2013	<p>American National Standard for Testing of Unlicensed Wireless Devices</p> <p>Stand alone or in combination with:</p> <p>Intentional Radiators (FCC Part 15 Subpart C)</p> <p>U-NII without DFS Intentional Radiators (FCC Part 15, Subpart E)</p> <ul style="list-style-type: none"> <li>• Unlicensed National Information Infrastructure Devices (U-NII without DFS)</li> <li>• KDB Publication 789033</li> </ul> <p>UWB Intentional Radiators (FCC Part 15, Subpart F)</p> <ul style="list-style-type: none"> <li>• Ultra-wideband Operation</li> </ul> <p>BPL Intentional Radiators (FCC Part 15, Subpart G)</p> <ul style="list-style-type: none"> <li>• Access Broadband Over Power Line (Access BPL)</li> </ul> <p>White Space Device Intentional Radiators (FCC Part 15, Subpart H)</p> <ul style="list-style-type: none"> <li>• White Space Devices</li> </ul>	<p>Highest measureable Frequency Range is limited to 325 GHz</p>
TK	FCC KDB Publication 905462 D02 v02	<p>UNII DFS Compliance Procedures New Rules</p> <p>Stand alone or in combination with:</p>	

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	(April 8, 2016)	U-NII with DFS Intentional Radiators (FCC Part 15 Subpart E) <ul style="list-style-type: none"> <li>• Unlicensed National Information Infrastructure U- NII) Devices with Dynamic Frequency Selection (DFS)</li> </ul>	

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TK	ANSI/TIA-603-E (2016)	<p>Land Mobile FM or PM Communications Equipment Measurement and Performance Standards</p> <p>Stand alone or in combination with:</p> <p>Commercial Mobile Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 22 (cellular)</li> <li>• Part 24</li> <li>• Part 25 (below 3 GHz)</li> <li>• Part 27</li> <li>• KDB Publication 971168</li> </ul> <p>General Mobile Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 22 (non-cellular)</li> <li>• Part 90 (below 3 GHz)</li> <li>• Part 95 (below 3 GHz)</li> <li>• Part 97 (below 3 GHz)</li> <li>• Part 101 (below 3 GHz)</li> </ul> <p>Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 96</li> <li>• KDB Publication 971168</li> <li>• KDB Publication 940660</li> </ul> <p>Maritime and Aviation Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 80</li> <li>• Part 87</li> </ul> <p>Microwave and Millimeter Bands Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 25</li> <li>• Part 30</li> <li>• Part 74</li> <li>• Part 90 (above 3 GHz)</li> <li>• Part 95 (above 3 GHz)</li> <li>• Part 97 (above 3 GHz)</li> <li>• Part 101</li> <li>• KDB Publication 653005</li> </ul>	Highest measurable Frequency Range is limited to 325 GHz

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TK	ANSI C63.26-2015	<p>IEEE/ANSI Standard for Compliance Testing of Transmitters Used in Licensed Radio Services</p> <p>Stand alone or in combination with:</p> <p>Commercial Mobile Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 22 (cellular)</li> <li>• Part 24</li> <li>• Part 25 (below 3 GHz)</li> <li>• Part 27</li> <li>• KDB Publication 971168</li> </ul> <p>General Mobile Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 22 (non-cellular)</li> <li>• Part 90 (below 3 GHz)</li> <li>• Part 95 (below 3 GHz)</li> <li>• Part 97 (below 3 GHz)</li> <li>• Part 101 (below 3 GHz)</li> </ul> <p>Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 96</li> <li>• KDB Publication 971168</li> <li>• KDB Publication 940660</li> </ul> <p>Maritime and Aviation Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 80</li> <li>• Part 87</li> </ul> <p>Microwave and Millimeter Bands Radio Services (FCC Licensed Radio Service Equipment)</p> <ul style="list-style-type: none"> <li>• Part 25</li> <li>• Part 30</li> <li>• Part 74</li> <li>• Part 90 (above 3 GHz)</li> <li>• Part 95 (above 3 GHz)</li> <li>• Part 97 (above 3 GHz)</li> <li>• Part 101</li> <li>• KDB Publication 653005</li> </ul>	Highest measurable Frequency Range is limited to 325 GHz
TK	TIA-102.CAAA Revision D, April 10, 2013	Project 25 Digital C4FM/CQPSK Transceiver Measurement Methods	

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TK	TIA-102.CAAA Revision E, March 2, 2016	Project 25 Digital C4FM/CQPSK Transceiver Measurement Methods	
TK	ANSI C63.26-2015	IEEE/ANSI Standard for Compliance Testing of Transmitters Used in Licensed Radio Services  Stand alone or in combination with: Signal Boosters (Part 20) <ul style="list-style-type: none"> <li>• Wideband Consumer signal boosters</li> <li>• Provider-specific signal boosters</li> <li>• Industrial signal boosters</li> </ul> Signal Boosters (Section 90.219) - KDB Publication 935210 D03, D04 and D05	Highest measurable Frequency Range is limited to 325 GHz
47 CFR Part 2 Frequency Allocations and Radio Treaty Matters; General Rules and Regulations			