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First edition
2018-02

Corrected version
2018-05

Road vehicles — Vehicle to grid communication interface —

Part 5: Physical layer and data link layer conformance test

Véhicules routiers — Interface de communication entre véhicule et réseau électrique —

Partie 5: Essai de conformité relatif à la couche physique et à la couche liaison de données

Reference number
ISO 15118-5:2018(E)

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Published in Switzerland

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Foreword

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This document was prepared jointly by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 31, *Data communication*, and Technical Committee IEC/TC 69, *Electric road vehicles and electric industrial trucks*. The draft was circulated for voting to the national bodies of both ISO and IEC.

A list of all parts in the ISO 15118 series can be found on the ISO website.

This corrected version of ISO 18541-6:2018 incorporates the following corrections:

— the foreword has been revised to indicate joint development with IEC/TC 69, *Electric road vehicles and electric industrial trucks*.

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Introduction

The first two parts of ISO 15118 describe the use cases and the technical specification of the Vehicle-to-Grid Communication Interface which is intended for the optimized use of energy resources so that electric road vehicles can recharge in the most economic or most energy efficient way. It is furthermore required to develop efficient and convenient billing systems in order to cover micro-payments resulting from charging processes. The necessary communication channel may serve in the future to contribute to the stabilization of the electrical grid, as well as to support additional information services required to operate electric vehicles efficiently and economically.

Resulting from the physical and data link layer requirements defined in the third part of the standard, a corresponding set of test cases are required in order to verify conformance of implementations. This document therefore defines a conformance test suite for the physical and data link layer protocols in order to derive a common and agreed basis for conformance tests. The resulting test suite is a necessary prerequisite for downstream interoperability tests. Since interoperability furthermore involves the actual application logic of an implementation, those tests are beyond the scope of this document. Hence this document focuses on the interface aspects and the corresponding requirements given in part three only.

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