STANDARD **11519-1**

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Road vehicles — Low-speed serial data communication —

Part 1:
General and definitions

Véhicules routiers — Communication en série de données à basse vitesse —

Partie 1: Généralités et définitions

Reference number
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Contents

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11519-1 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Sub-Committee SC 3, *Electrical and electronic equipment*.

ISO 11519 consists of the following parts, under the general title *Road vehicles — Low-speed serial data communication*:

— *Part 1: General and definitions*

— *Part 2: Low-speed controller area network (CAN)*

— *Part 3: Vehicle area network (VAN)*

— *Part 4: Class B data communication network interface (J1850)*

Road vehicles — Low-speed serial data communication —

Part 1:
General and definitions

1 Scope

This part of ISO 11519 specifies general definitions for low-speed serial data communication up to 125 kbit/s for road vehicle applications. Its object is to define the general architecture of the communication network and the content of the

— data link layer and

— physical layer

for transmission between the different types of electronic modules on board road vehicles.

NOTE 1 Parts 2, 3 and 4 of ISO 11519 are entirely independent and should be regarded as self-contained entities. No attempt should be made to implement any combination of the specifications in these parts.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 11519. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11519 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7498:1984, *Information processing systems — Open Systems Interconnection — Basic Reference Model.*

3 Definitions

For the purposes of ISO 11519, the following definitions apply.

3.1 arbitration: Process of awarding the communications medium (signal bus) to one of the nodes trying to gain control of it.

3.2 arbitration field: Bits within the message frame attributed to each message for controlling the arbitration.

3.3 bit rate: Number of bits per time during transmission, independent of bit representation.

3.4 broadcast communication: Transmission of information from one node to all other nodes, in contrast to node-to-node communications.