



International
Standard

ISO 17987-1

**Road vehicles — Local Interconnect
Network (LIN) —**

Part 1:

**General information and use case
definition**

Véhicules routiers — Réseau Internet local (LIN) —

Partie 1: Information générale et définition des cas d'usage

**Second edition
2025-05**

ISO 17987-1:2025

<https://standards.iteh.ai/catalog/standards/iso/7ca3834e-16fc-4649-9d4e-081da63da56a/iso-17987-1-2025>

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 17987-1:2025

<https://standards.iteh.ai/catalog/standards/iso/7ca3834e-16fc-4649-9d4e-081da63da56a/iso-17987-1-2025>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviated terms	2
5 Conventions	2
6 Use case overview and principles	3
6.1 Basic principles for use case definition	3
6.2 Use case clusters	3
7 LIN communications system use case definition	3
7.1 UC 1 Commander task cluster	3
7.1.1 UC 1.1 Generate LIN frame header	3
7.2 UC 2 Responder task cluster	4
7.2.1 UC 2.1 Break/sync byte field sequence detector	4
7.2.2 UC 2.2 LIN frame processor	4
7.2.3 UC 2.3 Responder node configuration	4
7.2.4 UC 2.4 Responder error status reporting	5
7.2.5 UC 2.5 Diagnostic responder node capabilities	5
7.3 UC 3 LIN communication protocol cluster	6
7.3.1 UC 3.1 Synchronization	6
7.3.2 UC 3.2 Checksum	6
7.3.3 UC 3.3 Responder bit rate detection	6
7.4 UC 4 LIN physical layer cluster	7
7.4.1 UC 4.1 Performance in non-operation supply voltage range	7
7.4.2 UC 4.2 Loss of supply voltage	7
7.5 UC 5 LIN network management	7
7.5.1 UC 5.1 LIN cluster network management	7
Bibliography	8