ISO 17987-3:2025-07 (E)

Road vehicles - Local Interconnect Network (LIN) - Part 3: Protocol specification

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms, definitions, symbols and abbreviated terms **1**
3.1 Terms and definitions 1
3.2 Symbols 4
3.3 Abbreviated terms 4

4 Node concept **5**
4.1 General 5
4.2 Concept of operation 6
4.2.1 Commander and responder 6
4.2.2 Frames 6
4.2.3 Data transport 7

5 Protocol requirements **7**
5.1 Signal 7
5.1.1 Management 7
5.1.2 Types 7
5.1.3 Consistency 7
5.1.4 Packing 7
5.1.5 Reception and transmission 8
5.2 Frame 9
5.2.1 Transfer 9
5.2.2 Structure 9
5.2.3 Frame length 13
5.2.4 Frame types 14
5.3 Schedule tables 19
5.3.1 General 19
5.3.2 Time definitions 19
5.3.3 Frame slot 19
5.3.4 Schedule table handling 20
5.4 Task behaviour model 20
5.4.1 General 20
5.4.2 Commander task state machine 20
5.4.3 Responder task state machine 20
5.5 Status management 23
5.5.1 General 23
5.5.2 Concept 23
5.5.3 Event-triggered frames 23
5.5.4 Reporting to the cluster 23

6 Node configuration and identification **24**
6.1 General 24
6.2 LIN product identification 24
6.2.1 Supplier ID, function ID and variant ID 24
6.2.2 Serial number 24
6.2.3 Wildcards 25
6.3 Responder node model 25
6.3.1 Memory model 25
6.3.2 Responder node configuration variants 25

6.3.3 Initial node address 26
6.3.4 PDU structure 27
6.3.5 Node configuration handling 29
6.3.6 Node configuration services 30

Annex A (normative) **Definition of properties, frame identifiers and various examples** **35**
Annex B (informative) **LIN history and version compatibility** **39**
Annex C (normative) **LIN auto addressing procedures** **43**
Annex D (normative) **LIN AA Procedure C** **45**
Annex E (normative) **LIN AA Procedure D** **53**
Annex F (normative) **LIN AA Procedure E** **59**
Bibliography **74**