

ISO 21111-8:2022-08 (E)

Road vehicles - In-vehicle Ethernet - Part 8: Electrical 100-Mbit/s Ethernet transmission media, components and tests

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Abbreviated terms	3
5	Communication channel/link	4
5.1	General	4
5.1.1	Definition of communication channel	4
5.1.2	Operating temperature	5
5.1.3	RF parameters	5
5.1.4	Definition of whole communication channel	6
5.1.5	Definition of coupling zone	6
5.2	Specification of single channel characteristics for SCC, cable and connector	8
5.2.1	Specification of SCC in WCC configuration including assembly	8
5.2.2	Specification of the cable in SCC	9
5.2.3	Specification of the connector in SCC	9
5.3	Specification related to the electromagnetic interaction between SCC and ES	9
5.3.1	Specification of the connector	9
5.3.2	Specification of SCC in WCC including assembly	10
6	Test methods	10
6.1	Apparatus	10
6.1.1	Test equipment	10
6.1.2	Precautions for VNA	11
6.1.3	VNA setting parameter	11
6.2	Procedure	12
6.2.1	Cable	12
6.2.2	Connector	12
6.2.3	WCC	14
6.3	Test results	17
Annex A (informative)	Extended test setup definitions	18
Annex B (informative)	Correction method for TDR measurements	19
Annex C (informative)	Definitions for alien crosstalk test setup four-around-one	21
Bibliography		23