

ISO 17987-8:2019-10 (E)

Road vehicles - Local Interconnect Network (LIN) - Part 8: Electrical physical layer (EPL) specification: LIN over DC powerline (DC-LIN)

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms, definitions, symbols, and abbreviated terms	1
3.1	Terms and definitions	2
3.2	Symbols and abbreviated terms	2
4	Electrical physical layer requirements	5
4.1	General	5
4.2	Transmitter characteristics	6
4.2.1	Transmit signal specification	6
4.2.2	Byte field modulation scheme	7
4.2.3	Break field modulation scheme	14
4.2.4	Wake-up signal modulation scheme	15
4.3	Timing requirements	18
4.3.1	Bit rate tolerance	18
4.3.2	Bit timing	19
4.3.3	Bit sample timing	19
4.3.4	TXD assert timeout event	19
4.3.5	Delay between transmitted byte field (DC-LIN node A) and received byte field (DC-LIN node A)	19
4.3.6	Delay between transmitted byte field (DC-LIN node A) and received byte field (DC-LIN node B)	19
4.4	Receiver characteristics	21
4.5	Electrical parameters	21
4.5.1	General configuration -- Coupling to the DC powerline	21
4.5.2	Signal specification	22
4.5.3	Line-out monitoring	23
4.5.4	ESD compliance	28
4.6	Communication in the presence of faults	28
Annex A (informative)	DC-LIN EPL peripheral interface design considerations	30
Annex B (normative)	DC-LIN EPL conformance test plan	31
Bibliography		56