

ISO 21806-8:2020 (E)

Road vehicles — Media Oriented Systems Transport (MOST) — Part 8: 150-Mbit/s optical physical layer

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Symbols and abbreviated terms
4.1	Symbols
4.2	Abbreviated terms
5	Conventions
6	Physical layer service interface to OSI data link layer
6.1	Overview
6.2	Data type definitions
6.3	Event indications and action requests
6.3.1	P_EVENT.INDICATE
6.3.2	P_ACTION.REQUEST
6.4	Parameters
6.4.1	PHY_Event
6.4.2	PHY_Request
7	Basic physical layer requirements
7.1	Logic terminology
7.1.1	Single-ended low-voltage digital signals
7.1.2	Differential LVDS signals
7.2	Specification points (SPs)
7.3	Phase variation
7.3.1	General
7.3.2	Wander
7.3.3	Jitter
7.3.4	Clock recovery and reference clock
7.3.4.1	General
7.3.4.2	Golden PLL
7.3.4.3	Jitter filter
7.3.5	Link quality
7.3.5.1	General
7.3.5.2	Alignment jitter
7.3.5.3	Transferred jitter
7.3.6	MOST network quality
7.3.6.1	Receiver tolerance
7.3.6.2	TimingMaster delay tolerance
8	MOST150 oPHY requirements
8.1	General MOST network parameters
8.1.1	MOST network coding
8.1.1.1	General
8.1.1.2	Pulse characteristics
8.1.1.3	Unit interval definition

- 8.1.1.4 DC balance
- 8.1.2 Specification Point details
- 8.2 Models and measurement methods
 - 8.2.1 Golden PLL
 - 8.2.2 Jitter filter
 - 8.2.3 Retimed bypass mode and stress pattern
 - 8.2.4 Optical signal level detection
 - 8.2.5 Region of optical signal level detection
- 9 Link specifications
 - 9.1 General
 - 9.2 Specification Point 1 (SP1)
 - 9.3 Specification Point 2 (SP2)
 - 9.3.1 Link quality parameters
 - 9.3.2 Optical overshoot and undershoot
 - 9.3.2.1 General
 - 9.3.2.2 Optical overshoot method
 - 9.3.2.3 Optical undershoot method
 - 9.4 Specification Point 3 (SP3)
 - 9.5 Specification Point 4 (SP4)
- 10 Power-on and power-off
 - 10.1 Frequency reference and power supply
 - 10.2 Power supply monitoring circuitry
 - 10.3 Optical and electrical signal power state
 - 10.3.1 General
 - 10.3.2 EOC requirements
 - 10.3.3 EOC power-on and power-off sequence
 - 10.3.3.1 General
 - 10.3.3.2 Power-on sequence example scenarios
 - 10.3.3.3 Power-off sequence example scenarios
 - 10.3.4 OEC requirements
 - 10.3.4.1 OEC functional requirements
 - 10.3.4.2 OEC power state requirements
 - 10.3.5 OEC power-on and power-off sequence
 - 10.3.5.1 General
 - 10.3.5.2 Power-on sequence example scenario
 - 10.3.5.3 Power-off sequence example scenario
- 11 MOST network requirements
 - 11.1 SP4 receiver tolerance
 - 11.2 TimingMaster delay tolerance
 - 11.3 Optical fibre link length requirement
 - 11.4 Environmental requirements and considerations
- 12 Electrical interfaces
 - 12.1 LVDS
 - 12.2 Bit rate and frequency tolerance
- 13 FOT packaging
 - 13.1 SMD package
 - 13.1.1 SMD FOT package reference drawings
 - 13.1.2 SMD FOT pinout
 - 13.1.3 SMD OEC signal definitions
 - 13.1.4 SMD EOC signal definitions
 - 13.2 Through-hole mount (THM) package
 - 13.2.1 THM FOT package reference drawings
 - 13.2.2 THM FOT pinout
 - 13.2.3 THM OEC signal definitions
 - 13.2.4 THM EOC signal definitions
 - 13.3 Small form connector 2+0 SMD 7-Pin-package
 - 13.3.1 2+0 Small form connector SMD 7-Pin-package reference drawings
 - 13.3.2 Small form connector 2+0 SMD 7-Pin-package FOT pinout
 - 13.3.3 7-Pin OEC signal definitions

- 13.3.4 7-Pin EOC signal definitions
- 13.4 MOST150 FO-Transceiver THM 180°
- 13.4.1 MOST150 FO-Transceiver THM 180° reference drawings
- 13.4.2 MOST150 FO-Transceiver THM 180° FOT pinout
- 13.4.3 MOST150 FO-Transceiver THM 180° OEC signal definitions
- 13.4.4 MOST150 FO-Transceiver THM 180° EOC signal definitions
- 13.5 MOST150 FO-Transceiver SMD 90°
- 13.5.1 MOST150 FO-Transceiver SMD 90° reference drawings
- 13.5.2 MOST150 FO-Transceiver SMD 90° FOT pinout
- 13.5.3 MOST150 FO-Transceiver SMD 90° OEC signal definitions
- 13.5.4 MOST150 FO-Transceiver SMD 90° EOC signal definitions
- 14 Device connectors
 - 14.1 Connector interfaces
 - 14.2 Connector interface loss

Page count: 46