

IDB-C Data Bus

Report on Studies for Modeling, Simulation, and Signal Analysis; and EMC/EMI Measurements and Testing

Table of Contents:

Preface

Part 1 Computer Modeling of CAN Automotive Bus Transceivers and Basic IDB Topologies (Part 1)

Abstract

- 1.1 Introduction
- 1.2 Modeling and Testing the
Bus Transceiver
- 1.3 Transmitter
- 1.4 Receiver
- 1.5 Summary of Part 2 of the
Report
- 1.6 Acknowledgments
- 1.7 References
- 1.8 Configurations and Diagram
Models

Part 2 Computer Modeling of CAN Automotive Bus Transceivers and Basic IDB Topologies (Part 2)

- 2.1 Introduction
- 2.2 Simulation and Measurement
Results
- 2.3 General Recommendations
- 2.4 Tables, Diagrams, and Plots

Part 3 Measurement Data Obtained from Different Bus and Filter Configurations

- 3.1 IDB-C Bus: Measurements
and Testing on Several Bus
Configurations and Filtering
- 3.2 Plots for Signal Delays and
Degradation for Several Bus
Configurations

Part 4 Electromagnetic Compatibility (EMC) and Interference (EMI)

- 4.1 Introduction
- 4.2 Electromagnetic Radiated
Emissions at the Subsystem
Level
- 4.3 Electromagnetic Interference
at the Subsystem Level
- 4.4 Electromagnetic Radiated
Emissions at the Vehicle Level
- 4.5 Recommendations and
Observations