

Delphi High Speed Digital Data (HSDD) Connectivity Systems

The Delphi High Speed Digital Data (HSDD) Connectivity Systems can help meet the growing demand for in-vehicle interfaces that provide high-speed connections with a wide range of consumer electronics equipment. Currently in production, the system enables camera and video applications used in safety systems, as well as high-speed data exchange between new harness architectures and a bus system for a wide range of applications. It is designed for the following:

- USB (Universal Serial Bus) 2.0
- IDB-1394 (intelligent transportation systems data bus using IEEE1394 technology)
- LVDS (Low-Voltage Differential Signaling) camera and video links
- FlexRay™
- High-speed MOST® (Media Oriented Systems Transport)
- Ethernet

► Benefits

- Designed for use with all automotive data bus systems
- Proven technology—USCAR (United States Council for Automotive Research) 30 tested
- High speed capability for use with wide range of applications without data loss
- Delphi offers a complete system, including:
 - Data link wiring sets
 - Header with PCB (Printed Circuit Board) solution
 - In-line connection
- Optimized impedance matching suitable for automotive connector requirements
- Various cable lengths and wiring outlets orientations possible
 - Angled
 - Straight

► Performance Advantages

The Delphi HSDD Systems employ a robust data cable to enable automotive applications with a standard automotive terminal (MTS-ST) and crimp technology. A new tactile lock system with connector position assurance (CPA) helps ensure proper connections. For USB connections, the system needs a universal adapter. The offered system generates a data loop from header to header with the possibility to add in-line interfaces.



4-way High Speed Digital Data (HSDD) Connector



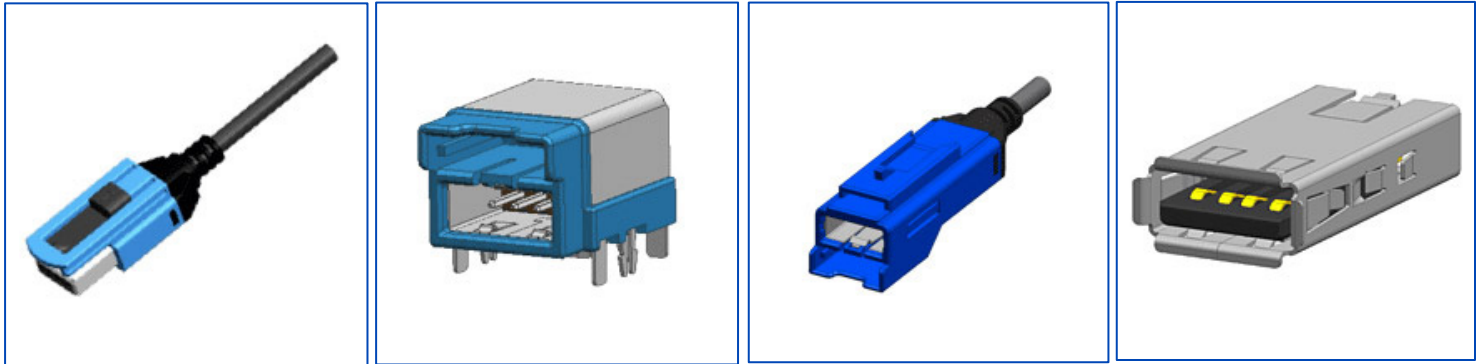
HSDD Cable Set



HSDD Connectivity System

► **Typical Applications**

The Delphi HSDD Systems are designed for use in all automotive data buses, and are suited for both automobile and commercial vehicle applications. The system can also be suitable for consumer applications where delivery of high speed data is needed.



4-way Female System

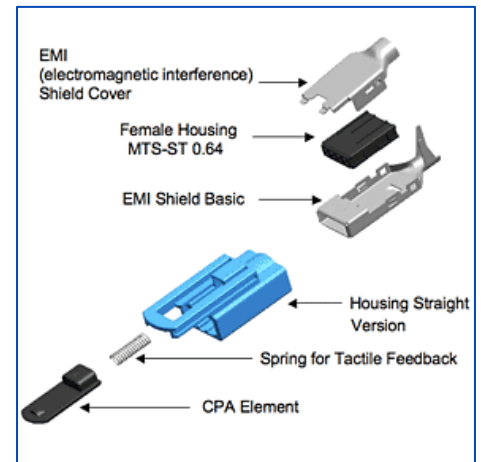
4-way Header System

4-way In-line Male System

4-way USB Adapter

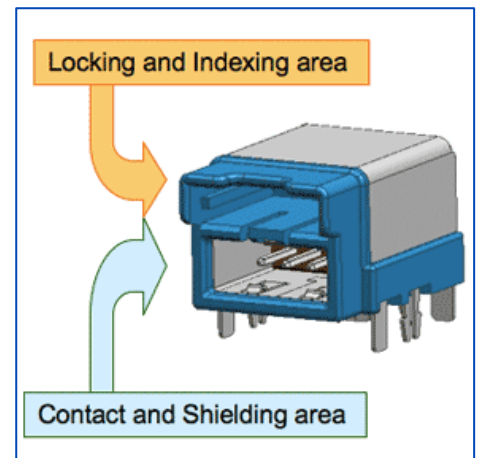
The Delphi system transports high speed digital data protocols with continuous shielding, while its optimized impedance matching makes it suitable for automotive connector requirements. The advanced design features:

- Robust construction with tactile lock system and connector position assurance (CPA)
- Simple and reduced shielding parts
- Continuous shielding (no data losses because the female, device and wire are a closed shielded system)
- Standard automotive assembly technologies
 - OEM (Original Equipment Manufacturers) released terminal systems
 - Crimp technology
 - Wiring assembly
 - Separate polarization and index area
 - The locking and index area stands for the automotive portion
 - The contact and shielding area stands for the data portion of the system
 - The tactile lock between both sections makes the mechanical connection



► **Specifications**

Differential Impedance	100 Ω / 90 Ω
Insertion Loss (connector)	<0, 1dB (up to 1GHz)
Skew (intrapair connector)	<10 ps
Shielding Effectiveness	≥75 dB (up to 1 GHz) ≥65 dB (up to 2 GHz)
Temperature Range	-40°C to 105°C



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MOST® is a registered trademark of MOST Corporation.