

# DESIGN INFORMATION

Our mission at Vermillion Incorporated is to be the most innovative company providing continuously improved cable, interconnect systems, related products and services to our customers.

With the choices available, the selection of components used in a cable and harness system can be a monumental task. Our goal is to help our customers make informed decisions when it comes time to design their interconnect systems. Effective design of harness and cable assemblies involves attention to tradeoffs to optimize a specific cable or harness design. We have broken down these design considerations in the area of harness and cable design into four discrete areas.

## **Wire and Cable Selection**

The selection of the wire or cable in a specific design is usually driven by the current carrying capability and voltage rating of the wire, the weight of the wire, and the need to identify the circuit (wire markability) for repairability.

## **Shielding Material Selection**

The principle objective in selecting shielding materials is to eliminate interference caused both by electrical and magnetic fields. Other important factors, which are addressed in the shielding section, are weight and flexibility.

## **Jacketing Material Selection**

Jacketing material selections are generally made based on the environment that the harness or cable is going to be exposed to. In applications where the harness or cable assembly is not going to be exposed to environmental concerns, but wire protection and weight is a concern, the design may utilize a light weight jacketing material such as braided Nylon or Polyester.

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**VERMILLION** INCORPORATED  
CERTIFIED TO ISO 9001:2000 + AS9100B

## IN-HOUSE DESIGN STAFF

Our experienced staff is committed to assisting our customers in all aspects of the design process providing them with complete turnkey engineering services as required by our customers. These services include taking a project from early design stages of engineering, through prototyping, and into production.

### Engineering Software

Our engineering team utilizes:

Autodesk Inventor  
AutoCad  
Unigraphics NX6 files

We can also view/interrogate Catia files with Enovia DMU.

We have the ability to open the following file types/extensions

*.iam	*.dwg	*.stp
*.idw	*.dxf	*.ste
*.ipt	*.dwf	*.step
*.ipn	*.dwfx	*.igs
*.ide	*.prt*	*.ige
*.CATPart	*.prt	*.iges
*.CATProduct	*.asm*	*.sldasm
*.sldprt	*.asm . . . and others	

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