

▶ **DESIGN AND MANUFACTURING OF CUSTOM  
WIRE HARNESSSES AND CABLE ASSEMBLIES**

Epec Engineered Technologies manufactures custom cables for specific applications based upon customer design and print requirements. We can assist with cable and connector selection, layout and manufacturing techniques, and computer aided design (CAD).

We also provide short-run manufacturing prior to mass production along with all aspects of the manufacturing process, including soldering, termination, wrapping and testing. Through our very formal quality assurance and testing processes Epec ensures the quality of all manufactured products.

▶ **MANUFACTURING CAPABILITIES**

- Wire Processing and Termination
- Wire Harnesses
- Cable Assemblies
- Networking Cable
- Ribbon Cable
- Molded Cables
- Power Cords
- Co-Axial Cable
- Battery Cable
- HDMI Cable
- D-Sub Cable
- RF Cable

▶ **PROCESSING CAPABILITIES**

- Cutting/Stripping
- Ink jet marking
- Hot stamp marking
- Semi-automatic termination
- Manual termination
- Wire wrap
- Taping
- Bar coding/Labeling
- Tywrapping and Lacing
- Braiding
- Loom, Split or solid
- Soldering, resistance soldering
- Ultrasonic welding
- Heat shrink tube application
- Potted connectors
- Heavy gauge cable/battery cable
- Shielding
- Tin/Silver/Nickel plating
- CE/UL



## ► DESIGN CRITERIA

Often times, minor details can substantially increase the cost and the complexity of a cable assembly, and may not be necessary.

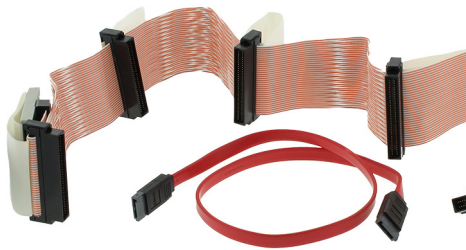
Here are some ways to keep quality high and hold costs down:

- Supply full-scale drawings.
- Give precise dimensions with loose tolerances. Keep tight tolerances to a minimum use three decimal places with a tolerance of +/- .030 inches.
- Specify all dimensions from the connector reference plane.
- Avoid direct marking; use shrink tube markers or self-laminating labels.
- Specify center and outer conductor material if there are any special requirements.
- Design bend radii as large as possible.
- Specify the cable or connector, but state "or equivalent" if possible. Different manufacturers often make identical parts but with wide variance in cost.
- Specify electrical properties only across desired frequency ranges, as over-testing can be expensive.
- Avoid female terminations since the connector may require special orientation.

## ► OVER MOLDED CABLES



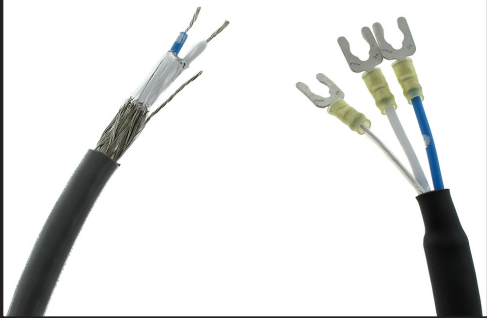
## ► FLAT RIBBON CABLES



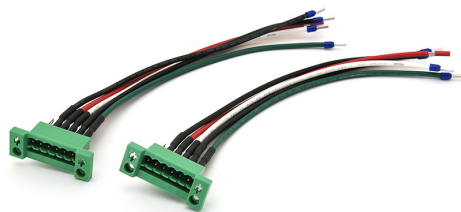
## ► POWER CABLES



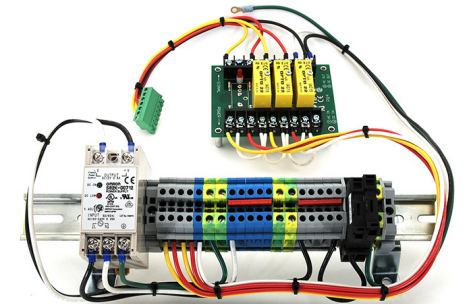
## ► SHIELDED CABLE ASSEMBLIES



## ► D-SUB CABLE



## ► WIRE HARNESSSES



Epec's diverse and growing base of more than 2500 customers represents a wide range of markets including electronics, medical, industrial, communications, access controls, automotive, computing, military, and includes leading OEM's, contract manufacturers, and electronics manufacturing services (EMS) providers.

Contact us today, to experience why Epec has become one of the fastest growing Engineered Electronic Product providers in North America!

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