

Cable Selection Checklist

The following checklist will assist you in identifying the issues you need to discuss with your cable manufacturer when selecting the right cable for your specific application and environment. Although you may not be able to complete all of the sections, it will be helpful if you are as specific as possible in the data you can provide.

Type of Application

- | | |
|--|---|
| <input type="checkbox"/> In-flight space: | <input type="checkbox"/> Ground test space: |
| <input type="checkbox"/> Military aircraft: | <input type="checkbox"/> Commercial aircraft: |
| <input type="checkbox"/> Military equipment: | <input type="checkbox"/> Microwave/RF: |
| <input type="checkbox"/> Geophysical: | <input type="checkbox"/> Cleanroom: |
| <input type="checkbox"/> Other: | |

General Requirements

- | | |
|---|-------------------------|
| Cable use length: | Maximum cable diameter: |
| Total number of cables: | Minimum cable diameter: |
| Data transmission: <input type="checkbox"/> Digital <input type="checkbox"/> Analog | Protocol/data rate: |
| Other: | |

Potential Electrical Issues

- | | |
|---|--|
| Voltage rating: | Signal/noise requirements: |
| Impedance: | Crosstalk: |
| Electrostatic discharge: <input type="checkbox"/> Yes <input type="checkbox"/> No | Attenuation: |
| | Electromagnetic Interference: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Other: | |

Potential Mechanical Issues

- | | |
|--|--|
| Flexing required: <input type="checkbox"/> Yes <input type="checkbox"/> No | Flex type: <input type="checkbox"/> Rolling <input type="checkbox"/> Tic-toc |
| Cycles: | <input type="checkbox"/> Torsion <input type="checkbox"/> Random |
| Bend radius/torsion angle: | Stroke length: |
| Acceleration rate: | Speed: |
| Other: | |

Potential Environmental Issues

- | | |
|---|--|
| Sharp edges: <input type="checkbox"/> Yes <input type="checkbox"/> No | Abrasion: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Maximum temperature: | Minimum temperature: |
| Humidity: <input type="checkbox"/> Yes <input type="checkbox"/> No | Chemical exposure type: |
| Liquid exposure type: | Gas exposure type: |
| Other contaminants: | Outgassing: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Shock/vibration: <input type="checkbox"/> Yes <input type="checkbox"/> No | Radiation: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Vacuum (Torr): | Cleanroom class: |
| Other: | |

Application-Specific IssuesWeight: ☐ Yes ☐ NoSpecific weight
requirement:Routing: ☐ Yes ☐ No

Cable track used:

Human manipulation: ☐ Yes ☐ NoCrush protection: ☐ Yes ☐ No

Connector type:

Regulatory requirements:

Backshell:

Other:

Total Cost of Ownership

Installation costs:

Impact on operating costs:

Maintenance frequency:

Maintenance costs:

Replacement frequency:

Replacement costs:

Manufacturing downtime frequency:

Downtime costs:

Bad product percentage:

Bad product costs:

Safety considerations:

Safety costs:

Other:

Application Notes: