TRU Corporation offers an extensive line of flexible RF cable assemblies and connectors solutions for applications that require high power/voltage capability as well as reliable, high quality performance. Our long heritage in high power design has made us a premier supplier in high power markets including critical safety applications in the industrial equipment segment.

Specifying the optimal assembly for your application is simplified by the broad selection of straight and right angle connector configurations and interface options, as well as the extensive range of cable choices. Our cables are specifically designed for their power capability and reliability. Our unique TRUflex cable termination method provides superior mechanical retention capability to eliminate the cable junction as a point of mechanical failure. Our innovative Quick Connect/Disconnect interfaces: TRU-SQS®, TRU-QRM™ and TRU-QDS® provide highly efficient and repeatable high power solutions without the need for added hand tools to securely mate.

In addition to the broad range of standard configurations in this brochure, TRU can also provide custom design solutions for your challenging applications. Our Application Engineering team is available to personally answer all your technical questions.

Visit our website or contact your local Richardson RFPD sales office to find additional support and product information: trucorporation.com and richardsonrfpd.com
To simplify the process of specifying an RF high power cable assembly, follow the step-by-step instructions below. Please refer to the cable assembly below, which illustrates the various elements to specify.

1. Prior to selecting a cable and connectors, please refer to the cable/connector selection matrix charts. Please refer to the cable assembly below, which illustrates the various elements to specify.

2. Selecting a Connector Interface Coaxial Cable Reference Chart

- **Threaded**
  - Provides positive mechanical engagement and light environmental seal when torqued properly.
  - Conforms to standard industry interface specifications.
  - Provides safety measures in high power environments. Can be used with interlock safety switches.

- **Quick Connect/ Disconnect**
  - Requires tools.
  - Robust connection using screw/bolt fasteners.
  - Direct mechanical attachment without the need for tooling.

- **Flange Mount**
  - Direct mechanical attachment using screw/bolt fasteners.
  - Provides safety measures in high power environments.

3. Specify each connector interface configuration (straight or right angle).

4. Specify coaxial cable required reference coaxial cable chart for attribute data.

5. Specify any relevant mechanical/electrical/ environmental specifications.

6. Identify any grounding requirements and their location.

7. Identify special marking requirements, if any.

8. Identify any relevant attribute data.

9. Specify the length of the assembly. Assemblies are generally measured from an end seal for straight connectors, or from the cabling of the right angle connectors, as shown.

10. Specify all connector interface code for attribute data.

11. Specify coaxial cable referenced coaxial cable chart for attribute data.
Specifying High Power RF Cable Assemblies

To simplify the process of specifying an RF high power cable assembly, follow the step-by-step instructions below. Please refer to the cable assembly below, which illustrates the various elements to specify.

Prior to selecting a cable and connectors please refer to the cable/connector selection matrix charts to determine available combinations.

Additional reference data has been provided to facilitate the proper selection of components for your application. Specifications subject to change without notice. For additional specifications or other products, visit us online or contact the factory.
TRUflex Specifications subject to change without notice. For additional specifications or other products, visit us online or contact the factory.

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Prior to selecting a cable and connectors please refer to the cable/connector selection matrix charts to determine available combinations.

Additonal reference data has been provided to facilitate the proper selection of components for your application to determine available combinations.

Selecting a Connector Interface

Choose the appropriate interface based on the requirements and specifications.

Standard Flange Mount

- Direct mechanical attachment using screw/bolt fasteners. Requires robust connection but labor intensive.

Quick Connect/ Disconnect

- Rapid connect/disconnect by engaging and tight torqued properly. Conforms to standard interface specifications. Can be used with extension safety switches.

In addition, reference data has been provided to facilitate the proper selection of components for your application to determine available combinations.


cable assembly below, which illustrates the various elements to specify.

1. Specify coaxial cable required. Reference coaxial cable chart for attribute data.
2. Specify a connector interface with relevant specifications.
3. Specify each connector interface, including straight or right angle.
4. Specify each (straight or right angle) connector part number and date code.
5. Specify the length of the assembly. Assemblies are generally measured from end to end for straight connectors, or from the centerline of right angle connectors, as shown.
6. Specify all mechanical/ electrical interface specifications.

TRUflex PWR Series

Coaxial Cable Reference Chart

<table>
<thead>
<tr>
<th>Cable Diameter (inch nominal)</th>
<th>TRU-500</th>
<th>TRU-560</th>
<th>TRU-450</th>
<th>TRU-500/560</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Diameter (inch nominal)</td>
<td>TRU-500</td>
<td>TRU-560</td>
<td>TRU-450</td>
<td>TRU-500/560</td>
</tr>
<tr>
<td>TRU-500</td>
<td>TRU-560</td>
<td>TRU-450</td>
<td>TRU-500/560</td>
<td></td>
</tr>
<tr>
<td>Center Conductor (standard)</td>
<td>7-strand</td>
<td>7-strand</td>
<td>7-strand</td>
<td>7-strand</td>
</tr>
<tr>
<td>Center Conductor (standard)</td>
<td>7-strand</td>
<td>7-strand</td>
<td>7-strand</td>
<td>7-strand</td>
</tr>
<tr>
<td>Conductive Material (runner)</td>
<td>T/PTE</td>
<td>T/PTE</td>
<td>T/PTE</td>
<td>T/PTE</td>
</tr>
<tr>
<td>Conductive Material (runner)</td>
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<td>T/PTE</td>
<td>T/PTE</td>
<td>T/PTE</td>
</tr>
<tr>
<td>Shrink Tube Type</td>
<td>TRU round</td>
<td>3KBT flat and round with interlayer</td>
<td>5KBT flat and round</td>
<td>3KBT flat and round</td>
</tr>
<tr>
<td>Shrink Tube Type</td>
<td>TRU round</td>
<td>3KBT flat and round with interlayer</td>
<td>5KBT flat and round</td>
<td>3KBT flat and round</td>
</tr>
<tr>
<td>Cable Jacket Material/Color</td>
<td>FEP brown</td>
<td>FEP blue</td>
<td>FEP blue</td>
<td>PVC black</td>
</tr>
<tr>
<td>Cable Jacket Material/Color</td>
<td>FEP brown</td>
<td>FEP blue</td>
<td>FEP blue</td>
<td>PVC black</td>
</tr>
<tr>
<td>Cable Min. Bend Radius Dynamic (inches)</td>
<td>1.50</td>
<td>131.25</td>
<td>181.25</td>
<td>2.45</td>
</tr>
<tr>
<td>Cable Min. Bend Radius Dynamic (inches)</td>
<td>1.50</td>
<td>131.25</td>
<td>181.25</td>
<td>2.45</td>
</tr>
<tr>
<td>Frequency Max (GHz)</td>
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<td>2.50</td>
<td>2.50</td>
<td>2.50</td>
</tr>
<tr>
<td>Frequency Max (GHz)</td>
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<td>2.50</td>
<td>2.50</td>
</tr>
<tr>
<td>Impedance (Ohms Nominal)</td>
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<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Impedance (Ohms Nominal)</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Temperature Operating °C</td>
<td>-55 to 200</td>
<td>-55 to 200</td>
<td>-55 to 200</td>
<td>-40 to 85</td>
</tr>
<tr>
<td>Temperature Operating °C</td>
<td>-55 to 200</td>
<td>-55 to 200</td>
<td>-55 to 200</td>
<td>-40 to 85</td>
</tr>
<tr>
<td>Weight (lbs/ft)</td>
<td>0.175</td>
<td>0.180</td>
<td>0.230</td>
<td>0.225</td>
</tr>
<tr>
<td>Weight (lbs/ft)</td>
<td>0.175</td>
<td>0.180</td>
<td>0.230</td>
<td>0.225</td>
</tr>
<tr>
<td>CW Power (Watts)</td>
<td>1,000,000</td>
<td>100,000</td>
<td>10,000</td>
<td>1,000</td>
</tr>
<tr>
<td>CW Power (Watts)</td>
<td>1,000,000</td>
<td>100,000</td>
<td>10,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

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TRUflex PWR Series

RF Power Handling

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>TRU-QMS®</th>
<th>TRU-QDS®</th>
<th>TRU-QDM®</th>
<th>TRU-QMS®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (MHz)</td>
<td>TRU-QMS®</td>
<td>TRU-QDS®</td>
<td>TRU-QDM®</td>
<td>TRU-QMS®</td>
</tr>
<tr>
<td>Power (Watts)</td>
<td>500</td>
<td>3,500</td>
<td>500</td>
<td>3,500</td>
</tr>
<tr>
<td>Voltage (V RMS)</td>
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<td>100</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Voltage (V RMS)</td>
<td>10</td>
<td>100</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

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Quick Connect/Disconnect Connector Configurations

TRU Corporation’s Quick Connect/Disconnect RF interface provides reliable mating with fast connect/disconnect capability. These interfaces feature positive locking mechanisms employing a spring-loaded sleeve on the male plug that is drawn back to self-contained cribs into grooves on the mating female receptacle and slide forward in a fully mated and safe condition is visually represented with full coverage of our TRU-Redline™ indicator. These designs provide exceptionally fast and reliable mating that will not vibrate loose.

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Threaded and Flange Mount Connector Configurations

TRU offers a broad range of standard high power cable connector designs and configurations to provide the maximum flexibility for your design. In addition to those shown below, TRU can provide custom designs and features per your specification. TRU also offers a broad range of panel mount receptacles with high power/voltage capability and application specific launch geometries.

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High Power RF Cable Assemblies

- Broad range of connector and cable combinations
- VR power handling capabilities
- Quick Connect/Disconnect interface technology
- Test and adapter solutions available
- Experience in high power design and safety innovations

TRU offers an extensive line of flexible RF cable assembly and connector solutions for applications that require high power/voltage capability as well as reliable, high quality performance. Our long heritage in high power design has made us a premier supplier in high power markets, including critical safety applications in the industrial equipment segment.

TruCorporation.com 1-800-262-9878

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To request literature: marketing@trucorporation.com

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Dimensions shown are reference only.