Introduction

In over fifty years of coaxial connector manufacturing, we've made connectors in hundreds of mating series, in sizes ranging from microminiature connectors with body diameters of less than .100" to high-power types over 4" in diameter.

Some types on the following pages are not detailed in this catalog, but are readily available in both standard and custom configurations—just call us with your requirements.

The "legacy" connector types listed on page 11 are series that are no longer in current production, but are occasionally required for replacement purposes—or they may be found to have optimal characteristics for specific applications.

We maintain a large stock of parts and finished units for a wide range of these "legacy" series. In addition, we have one of the largest RF connector drawing and catalog libraries in the world—we can cross-reference from almost any manufacturer part number or military specifications, current or obsolete.

This is just a partial listing of the connector series, current and "legacy," that we can provide. No matter how obscure your requirements, call us—we may be able to supply the connectors you need when nobody else can.
## Connector Series Descriptions

All drawings approximately actual size—some proportions may be altered to illustrate detail.

### ADM

Coaxial contacts for use in D-subminiature type multi-pin connectors. They are available with standard and polarized interfaces in both standard and high-frequency versions. Impedance: 50 ohms. Frequency range: Standard, DC–1 GHz; High-frequency, DC–10 GHz.

<table>
<thead>
<tr>
<th>Plug</th>
<th>Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø.22 (5.6)</td>
<td>ø.22 (5.6)</td>
</tr>
<tr>
<td>ø.153 (3.9)</td>
<td>ø.153 (3.9)</td>
</tr>
</tbody>
</table>

### BNC

Miniature, economical connectors with two-stud bayonet mating, designed to MIL-PRF-39012 requirements. MIL-PRF-39012 QPL, twinaxial (TWB), triaxial (TRB), and push-on mating versions are available. Anti-rock versions with three- or four-stud bayonet mating can be supplied. Impedance: 50 ohms. 75 ohm versions also available. Frequency range: DC–4 GHz.

<table>
<thead>
<tr>
<th>Plug</th>
<th>Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø.56 (14.2)</td>
<td>ø.56 (14.2)</td>
</tr>
<tr>
<td>.43 (10.9)</td>
<td>.43 (10.9)</td>
</tr>
</tbody>
</table>

### C

Medium-size connectors with two-stud bayonet mating, designed to MIL-PRF-39012 requirements. Push-on, high-voltage, and triaxial versions are available. Impedance: 50 ohms. Voltage rating: Standard, 1,000V RMS; High voltage, 3,000 V RMS. Frequency range: Standard, DC–11 GHz; High voltage, DC–2 GHz.

<table>
<thead>
<tr>
<th>Plug</th>
<th>Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø.75 (19.1)</td>
<td>ø.75 (19.1)</td>
</tr>
<tr>
<td>.59 (15.0)</td>
<td>.59 (15.0)</td>
</tr>
</tbody>
</table>

### Cable terminations

Used to anchor cables to panels, and/or feed cable dielectric and center conductor through panels or bulkheads. Used where cable does not need to be disconnected. Impedance: Same as cable used. Frequency range: N/A.

- **Strap Mount**
- **Bulkhead Mount**
- **Panel Mount**
GHV

Large, high-voltage connectors with threaded mating.
Impedance: 50 ohms
Voltage rating: 25 KV DC.
Frequency range: DC–1GHz.

HN

Large, high-power connectors with threaded mating, designed to MIL-C-3643 and MIL-PRF-39012 requirements. Some types incorporate armor clamp for use with armored cable.
Impedance: 50 ohms
Frequency range: DC–4GHz.

LC and LT

Large, very high-voltage connectors with threaded mating, designed to MIL-C-3650 requirements.
LC and LT connectors are similar in size, but not intermateable.
Impedance: 50 ohms
Voltage rating: 5,000 V DC.
Frequency range: DC–1 GHz.
## MHV

Miniature high-voltage connectors (similar in size to BNC series) with two-stud bayonet mating, designed to MIL-C-3643 and MIL-PRF-39012 requirements. Voltage rating: 5,000 V DC. Impedance: 50 ohms. Frequency range: DC–50 MHz.

<table>
<thead>
<tr>
<th>MHV</th>
<th>Dimensions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>ø.56 (14.2)</td>
<td>1.3 (33)</td>
</tr>
<tr>
<td>Jack</td>
<td>ø.43 (10.9)</td>
<td>1.4 (35.6)</td>
</tr>
</tbody>
</table>

## Microminiature Slide-on, Snap-On, and Threaded

Microminiature connectors with slide-on, snap-on, or threaded mating, compatible with Microdot® (Malco) connectors. Available with standard or polarized mating interfaces. Impedance: 50, 70, or 93 ohms.

<table>
<thead>
<tr>
<th>Microminiature Slide-on, Snap-On, and Threaded</th>
<th>Dimensions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slide-On Mating (MSM)</td>
<td>ø.25 (6.4)</td>
<td>.88 (22.4)</td>
</tr>
<tr>
<td>1/4 hex</td>
<td>63 (16.0)</td>
<td></td>
</tr>
<tr>
<td>Snap-On Mating (MMP)</td>
<td>ø.25 (6.4)</td>
<td>.88 (22.4)</td>
</tr>
<tr>
<td>1/4 hex</td>
<td>63 (16.0)</td>
<td></td>
</tr>
<tr>
<td>Threaded Mating (MTM)</td>
<td>ø.25 (6.4)</td>
<td>.67 (17)</td>
</tr>
<tr>
<td>10–32 thd</td>
<td>63 (16.0)</td>
<td></td>
</tr>
</tbody>
</table>

## N

Medium-size, versatile connectors with threaded mating, constructed to MIL-PRF-39012 requirements. N connectors are one of the most popular series available because of their combination of good performance, economical pricing, and wide range of configurations. MIL-PRF-39012 QPL versions are available. Push-on and triaxial versions can also be supplied. Impedance: 50 ohms; 75 ohm also available. Frequency range: DC–11 GHz.

<table>
<thead>
<tr>
<th>N</th>
<th>Dimensions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>ø.78 (19.8)</td>
<td>1.6 (40.6)</td>
</tr>
<tr>
<td>Jack</td>
<td>5/8–24 thd</td>
<td>1.1 (27.9)</td>
</tr>
</tbody>
</table>
### PMA
Subminiature, high-frequency connectors with slide-on mating; equivalent in size and electrical performance to SMA series.
Plugs are float-mounted for use in rack-and-panel or other blind-mate applications where SMA connectors cannot be used.
Impedance: 50 ohms.
Frequency range: DC–18 GHz.

<table>
<thead>
<tr>
<th>Plug</th>
<th>Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="PMA Plug Diagram" /></td>
<td><img src="#" alt="PMA Jack Diagram" /></td>
</tr>
<tr>
<td>1.1 (27.9)</td>
<td>50 (12.7)</td>
</tr>
<tr>
<td>.25 (6.4)</td>
<td>.25 (6.4)</td>
</tr>
</tbody>
</table>

### PMMA
Miniaturized version of PMA.
High-frequency connectors with slide-on mating. Plugs are float-mounted for use in blind-mate applications where SSMA connectors cannot be used.
Impedance: 50 ohms.
Frequency range: DC–18 GHz.

<table>
<thead>
<tr>
<th>Plug</th>
<th>Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="PMMA Plug Diagram" /></td>
<td><img src="#" alt="PMMA Jack Diagram" /></td>
</tr>
<tr>
<td>53 (13.5)</td>
<td>67 (17.0)</td>
</tr>
<tr>
<td>.18 (4.6)</td>
<td>.38 (9.7)</td>
</tr>
</tbody>
</table>

### PMX
Microminiature, high-frequency connectors with snap-on or slide-on mating. Used in blind-mate applications. Compatible with OSP® and other SMP series connectors per DSCC drawings 94007 and 94008.
Impedance: 50 ohms.
Frequency range: DC–40 GHz.

<table>
<thead>
<tr>
<th>Plug</th>
<th>Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="PMX Plug Diagram" /></td>
<td><img src="#" alt="PMX Jack Diagram" /></td>
</tr>
<tr>
<td>.33 (8.4)</td>
<td>25 (6.4)</td>
</tr>
<tr>
<td>.165 (4.2)</td>
<td>.131 (3.3)</td>
</tr>
</tbody>
</table>

### Push-on—Subminiature 78 series
Subminiature connectors with slide-on mating.
Allow very close panel spacing (as little as .150") when mated.
Impedance: 50 ohms.

<table>
<thead>
<tr>
<th>Plug</th>
<th>Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="Push-on Subminiature 78 series Diagram" /></td>
<td><img src="#" alt="Push-on Subminiature 78 series Diagram" /></td>
</tr>
<tr>
<td>.32 (8.1)</td>
<td>.29 (7.4)</td>
</tr>
<tr>
<td>.165 (4.2)</td>
<td>.180 (4.6)</td>
</tr>
</tbody>
</table>
**QDS**

Medium-size connectors with push-pull mating and unmating, incorporating a locking-ball mechanism, similar to that used on air line couplings.

- Designed to MIL-C-18867 requirements.
- Impedance: 50 ohms.
- Frequency range: DC–2 GHz.

**SC**

Medium-size connectors with threaded mating, designed to MIL-PRF-39012 requirements. High-voltage and triaxial versions are available.

- Impedance: 50 ohms.
- Voltage rating: Standard, 1,000V RMS; High voltage, 4,000 V RMS.
- Frequency range: Standard, DC–11 GHz; High voltage, DC–2 GHz.

**SHV**

Miniature, very-high-voltage connectors (similar in size to BNC series) with two-stud bayonet mating, designed to MIL-PRF-39012 requirements. They have deeply recessed contacts and overlapping insulators for handling safety.

- Voltage rating: 5,000 V DC.
- Impedance: Non-constant.
- Frequency range: DC–50 MHz.

**SMA**

Subminiature, high-frequency connectors with threaded mating, designed to MIL-PRF-39012 requirements. They have stainless-steel bodies for durability. MIL-PRF-39012 QPL versions are available for many configurations.

- Impedance: 50 ohms
- Frequency range: DC–18 GHz.
All drawings approximately actual size—some proportions may be altered to illustrate detail.

### SMB

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>Snap-on mating, designed to MIL-PRF-39012 requirements. Similar types with slide-on and threaded mating also available.</td>
<td>Impedance: 50 ohms; 75 ohm versions also available. Frequency range: DC–4 GHz.</td>
</tr>
<tr>
<td>Jack</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SMB slide-on

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>Identical to SMB, without detent in mating mechanism. Low mating and unmating forces makes them useful in rack-and-panel applications.</td>
<td>Impedance: 50 ohms; 75 ohm versions also available. Frequency range: DC–4 GHz.</td>
</tr>
<tr>
<td>Jack</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SMC

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>Similar to SMB, with threaded mating for more secure coupling and higher frequency range; designed to MIL-PRF-39012 requirements. MIL-PRF-39012 QPL versions are available.</td>
<td>Impedance: 50 ohms; 75 ohm versions also available. Frequency range: DC–10 GHz.</td>
</tr>
<tr>
<td>Jack</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SSMA

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>Microminiature, high-frequency connectors with threaded mating (smaller version of SMA series), designed to MIL-PRF-39012 requirements. They have stainless-steel bodies for durability.</td>
<td>Impedance: 50 ohms. Frequency range: DC–36 GHz.</td>
</tr>
<tr>
<td>Jack</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SSMB

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>Microminiature connectors with snap-on mating (smaller version of SMB series), designed to MIL-PRF-39012 requirements.</td>
<td>Impedance: 50 ohms. Frequency range: DC–12.4 GHz.</td>
</tr>
<tr>
<td>Jack</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
All drawings approximately actual size—some proportions may be altered to illustrate detail.

### SSMC
- Microminiature connectors with threaded mating (smaller version of SMC series), designed to MIL-PRF-39012 requirements.
- Impedance: 50 ohms.
- Frequency range: DC–12.4 GHz.

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### SSMD
- Microminiature connectors with slide-on mating (slide-on version of SSMB series).
- Impedance: 50 ohms.
- Frequency range: DC–12.4 GHz.

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### Subminiature Bayonet, Snap-On, and Threaded
- Subminiature, versatile connectors with four mating interfaces to suit varied applications:
  - **Bayonet (2-stud):** For quick mating and unmating; cannot be accidentally unmated by pulling on cable.
  - **Bayonet (3-stud):** For quick mating and unmating; three-stud design prevents rocking of mated connectors.
  - **Snap-on:** For quick mating and unmating with a straight push / pull.
  - **Threaded:** For secure mating; can be supplied with lockwire holes.
- All are also available in twinaxial and triaxial versions.
- Impedance: 50 ohms.
- Frequency range: DC–1 GHz.
All drawings approximately actual size—some proportions may be altered to illustrate detail.

### Switches

We manufacture a wide variety of coaxial switches, available with your choice of connector series, in numerous configurations and options:
- Transfer or crossover;
- Manual or remote control;
- 1P 2T through 1P 6T;
- 2P 2T;
- Circular or rectangular package;
- With or without mounting provisions.

### TNC

Miniature connectors similar in size to BNC series, but with threaded mating for enhanced vibration resistance and electrical performance. Designed to MIL-PRF-39012 requirements. MIL-PRF-39012 QPL, twinaxial (TWT), and triaxial (TRT) versions are available.

- Impedance: 50 ohms. 75 ohm versions also available.
- Frequency range: DC–11 GHz.

### TPS

Subminiature connectors with three-stud anti-rock mating, designed to MIL-C-55235 and MIL-PRF-39012 requirements.

- Also available in triaxial versions with three- or four-stud mating.
- Impedance: 50 ohms.
- Frequency range: DC–10 GHz.

### TRB

Miniature triaxial connectors with three-stud bayonet mating (triaxial version of BNC series). The three-stud anti-rock mating minimizes triboelectric noise in sensitive circuits. Designed to MIL-PRF-39012 and MIL-C-49192 requirements.

- Also available with four-stud mating.
- Impedance: 50 ohms.
- Frequency range: DC–500 MHz.
Connector Series Descriptions

All drawings approximately actual size—some proportions may be altered to illustrate detail.

**TRT**

Miniature triaxial connectors with threaded mating (triaxial version of TNC series). Designed to MIL-PRF-39012 and MIL-C-49192 requirements.
- Impedance: 50 ohms.
- Frequency range: DC–500 MHz.

**TWBNc**

Miniature twinaxial connectors with two-stud bayonet mating (twinaxial version of BNC series). Designed to MIL-PRF-39012 and MIL-C-3655 requirements. Also available with three-and four-stud mating for anti-rock requirements.
- Impedance: 50 ohms.
- Frequency range: DC–500 MHz.

**Twin 3/4-20**

Medium twinaxial connectors with threaded mating.
- Polarizing slot in plug interface and key in jack interface prevent mismating.
- Designed to MIL-PRF-39012 and MIL-C-3655 requirements.
- Impedance: 95 ohms.
- Frequency range: DC–500 MHz.

**TWTNc**

Miniature twinaxial connectors with threaded mating (twinaxial version of TNC series). Designed to MIL-PRF-39012 and MIL-C-49192 requirements.
- Impedance: 50 ohms.
- Frequency range: DC–500 MHz.
Legacy Connector Series

In over fifty years of coaxial connector manufacturing, we have produced connectors in hundreds of different series. Many of these are no longer in current production, but are occasionally required for replacement purposes.

We maintain a large stock of parts and finished units for a wide range of these “legacy” series. In addition, we have one of the largest RF connector drawing and catalog libraries in the world—we can cross-reference from almost any manufacturer part number or military specifications, current or obsolete.

This is just a partial listing of the legacy connector series we can provide. No matter how obscure your requirements, call us—we may be able to supply the connectors you need when nobody else can.

**Battery Connectors:** Military multipin to SM-C-447075.

**BN:** Small version of type N series, replaced in general usage by BNC connectors.

**GR874:** Hermaphroditic connectors used on test equipment manufactured by General Radio.

**F:** Low-frequency, threaded connectors used in CATV applications.

**HLT:** Higher-voltage (10KV) version of LT series.

**LCL (LC Large):** Large version of LC series, for extremely high voltage and power handling.

**LN:** Large version of N series, designed for use with RG-14 and similar-size cables.

**Pulse A and B:** Large, high-voltage connectors with ceramic insulators. Used in Naval aircraft and shipboard equipment, and Army Signal Corps equipment.

**Pulse Rubber:** Large, high-voltage connectors (similar to Pulse A and B) with rubber insulators.

**Push-on Miniature:** UG-1050 type, similar in size to BNC connectors.

**QDL:** Quick-mating version of LC connectors. Mates via a push-pull locking ball mechanism.

**QL and QM:** Similar to LC and LT series, with quick-lead mating threads and improved electrical performance.

**SKL:** Designed for use with Klystron tubes; generally replaced by BNC connectors.

**SM:** Miniature connectors with threaded mating; not weatherproof. Similar in size to BN connectors.

**SMD:** Miniature, threaded, low-frequency connectors.

**SMT:** Miniature connectors with threaded mating; compatible with GRFF / Solitron TM series.

**SRL:** Miniature connectors with threaded mating; compatible with Gremar Red Line series.

**Star-Tronics:** After our acquisition of Star-Tronics in the 1970s, many Star-Tronics connectors were re-assigned to Automatic part numbers. We maintain the complete library of Star-Tronics drawings, and can supply any Star-Tronics connectors.

**UHF:** Medium, low-frequency connectors with threaded mating. The original RF connector series; current usage generally for CB radio antenna connections. Twinaxial versions also available.

All trade names are acknowledged to be the property of their respective owners.