ZMA CONNECTORS AND COMPONENTS

Interface Mating Dimensions*

Jack

Plug

* High power.

Specifications

General


Finish: Center contacts shall be gold plated in accordance with MIL-G-45204, Type I, Grade C. All other metal parts shall be finished to meet corrosion requirements.

Note: Only representative outlines are shown. Contact factory for specific outline drawings.

Electrical

Insulation Resistance: 10,000 Megohms Min.
Corona Level: 625 VRMS Low Power; 1,000 VRMS High Power
DVW: 2,500 VRMS Low Power; 4,000 VRMS High Power
RF High Potential: 1,675 VRMS Low Power; 2,667 VRMS High Power
VSWR: 1.15:1, DC-12.4 GHz Low Power; 1.07:1, DC-3 GHz High Power
RF Leakage: -90dB Min.
Insertion loss: .03 x √f (GHz)
Power Handling (avg.): 220 Watts Average at 1.3 GHz; 2700 Watts Peak
Power Handling (pulse): 6.5 KW at 40,000 ft at 2 GHz; 1 microsecond pulse width; 1% duty cycle

Environmental

Vibration: Specification MIL-STD-202, Method 204, Test Condition D
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Features

• Three types available
  — 3.0 GHz, 6.7 kW @ 40,000 ft and 250 W CW
  — 12.4 GHz, stainless steel body for harsh military environments
  — 12.4 GHz, brass body for telecommunications applications
• Ideal for extreme vibration applications at microwave frequencies
• Overlapping interface dielectric ideally suited for high-power/high-voltage applications
• Bayonet coupling installs with just 1/4 turn
• Internal alignment and spring forces comparable to those of blindmate connectors
• Mated by hand – no special tooling required
• 3-lug and 4-lug latching mechanism for mechanical stability
• Multiple keying options prevent improper mating of assemblies

Keying Options*

![Keying Options Diagram]

*The standard scheme is 90°.

Cable Connectors

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Frequency (GHz)</th>
<th>Cable</th>
<th>Style</th>
<th>Keying Scheme*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF8704-6002</td>
<td>ZMA Plug</td>
<td>DC – 12.4</td>
<td>.085 Semi-Rigid</td>
<td>High Freq.</td>
<td>90°</td>
</tr>
<tr>
<td>SF8705-6002</td>
<td>ZMA Jack</td>
<td>DC – 12.4</td>
<td>.085 Semi-Rigid</td>
<td>High Freq.</td>
<td>90°</td>
</tr>
<tr>
<td>SF8704-6001</td>
<td>ZMA Plug</td>
<td>DC – 12.4</td>
<td>.141 Semi-Rigid</td>
<td>High Freq.</td>
<td>90°</td>
</tr>
<tr>
<td>SF8706-6001</td>
<td>ZMA Jack</td>
<td>DC – 12.4</td>
<td>.141 Semi-Rigid</td>
<td>High Power</td>
<td>90°</td>
</tr>
<tr>
<td>SF8707-6122</td>
<td>ZMA Plug</td>
<td>DC – 3.0</td>
<td>Semflex HP290S</td>
<td>High Power</td>
<td>90°</td>
</tr>
<tr>
<td>SF8706-6121</td>
<td>ZMA Plug</td>
<td>DC – 3.0</td>
<td>Semflex HP120</td>
<td>High Power</td>
<td>90°</td>
</tr>
<tr>
<td>SF8702-6107</td>
<td>ZMA Plug</td>
<td>DC – 3.0</td>
<td>Semflex HP190</td>
<td>High Power</td>
<td>90°</td>
</tr>
<tr>
<td>SF8712-6501</td>
<td>ZMA Right Angle Plug</td>
<td>DC – 3.0</td>
<td>Semflex HP290S</td>
<td>High Power</td>
<td>90°</td>
</tr>
<tr>
<td>SF8717-6024</td>
<td>ZMA Right Angle Plug</td>
<td>DC – 3.0</td>
<td>RG-58/U</td>
<td>High Power</td>
<td>90°</td>
</tr>
<tr>
<td>SF8713-6024</td>
<td>ZMA Right Angle Plug</td>
<td>DC – 3.0</td>
<td>Semflex HP290S</td>
<td>High Power</td>
<td>90°</td>
</tr>
</tbody>
</table>

* Other keying schemes available.
Contact factory for brass equivalents.

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#### Receptacles

**Part Number** | **Description** | **Keying Scheme** | **Part Number** | **Description** | **Keying Scheme**
--- | --- | --- | --- | --- | ---
SF8750-6001 | ZMA Jack 4-Hole Flange | 90° | SF8770-6007 | ZMA Jack | 90°
8778-6000 | ZMA Jack Hermetic | 90° | 8785-6001 | ZMA Jack PCB Mount | 90°

* Threaded receptacle accepts .020 (.5mm) dia. pin
** Other keying schemes available.

*Contact factory for brass equivalents.*

#### Terminations and Dustcaps

**Part Number** | **Description** | **Keying Scheme**
--- | --- | ---
SF8087-6009 | ZMA Plug Termination | 90°
SF8087-6010 | ZMA Jack Termination | 90°
SF8798-6000 | ZMA Plug Dust Cap | 90°

Calibration Kit available. Ask for part number 8700-CALKIT.

* Other keying schemes available.

#### Adapters

**Part Number** | **Description** | **Keying Scheme** | **Part Number** | **Description** | **Keying Scheme**
--- | --- | --- | --- | --- | ---
SF1187-6006 | ZMA Plug to 3.5mm Plug | 90° | SF1122-6031 | ZMA Plug to SMA Jack | 90°
SF1187-6007 | ZMA Plug to 3.5mm Jack | 90° | SF1122-6023 | ZMA Jack to SMA Plug | 90°
SF1187-6002 | ZMA Jack to 3.5mm Plug | 90° | SF1122-6035 | ZMA Jack to SMA Jack | 90°
SF1187-6003 | ZMA Jack to 3.5mm Jack | 90° | SF1122-6010 | ZMA Plug to TNC Plug | 90°
SF1187-6027 | ZMA Plug to ZMA Plug | 90° | SF1122-6016 | ZMA Jack to TNC Plug | 90°
SF1187-6025 | ZMA Jack to ZMA Plug | 90° | SF1122-6019 | ZMA Jack to TNC Jack | 90°
SF1187-6029 | ZMA Jack to ZMA Jack | 90°

* Other keying schemes available.*

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