CeeLok FAS-T connectors offer a small form factor, field terminable I/O connector capable of 10 Gb/s Ethernet. Crimp-snap contacts enable easy termination and field repairability. The integral backshell offers easy 360-degree shield termination.

The compact size 8 shell helps designers meet the needs of reduced SWaP (size, weight, and power).

The connector’s T-shaped contact pattern provides noise cancellation and decoupling to minimize crosstalk and increase signal integrity.

The CeeLok FAS-T connector is a true 100-ohm impedance connector that is compatible with Cat 5e and Cat 6A cables and protocols ranging from the USB and IEEE 1394 to gigabit and 10G Ethernet.

Performance Characteristics

**DATA RATES**

- Gigabit and 10 Gigabit Ethernet when used with Cat 5e, Cat 6A or Cat 7 cables

**ELECTRICAL**

- Insulation resistance: 5000 MΩ ambient, 1000 MΩ @ 175°C
- Dielectric withstanding voltage:
  - 500 VAC @ sea level
  - 100 VAC @ 70,000 ft.
- Shielding effectiveness: per MIL-DTL-38999
- Shell-to-shell conductivity: 5 mV initial, 10 mV final

**MECHANICAL**

- Vibration, Sine: MIL-DTL-38999 Series III (60 g), 4 hrs per axis, no elevated temperature
- Vibration, Random: EIA-364-28
  - Condition VI Letter J (43.92 g)
- Durability: 500 mating cycles
- Contact Retention: 10 lb. min.
- Coupling Torque: 8 in-lb. max.

**ENVIRONMENTAL PROPERTIES**

- Operating Temperature: -65°C to +175°C
- Sealing: Altitude Immersion: 70,000 ft. (mated condition)
- IP67: Mated condition
- IPX6 (water jet): Receptacle, panel mounted (unmated condition)
- Corrosion Resistance: 500 hr. salt mist – black zinc nickel per AMS-2417

**MATERIALS**

- Shell: Electroless nickel or black zinc for DOD-approved, RoHS-compliance, corrosion resistance (500 hr. salt mist)
- Insert: High-temperature thermoplastic for excellent temperature endurance
- Low dielectric constant for superior signal integrity
- Contacts: Beryllium copper alloy

**STANDARDS AND SPECIFICATIONS**

- Product Specification: 108-2482
- Application Specification: 114-32025
- Instruction Sheet: 408-32046
- Test Report: 501-134002
- Electrical Performance Report: 505-116000
## CeeLok FAS-T Connectors

<table>
<thead>
<tr>
<th>Type</th>
<th>Contacts Included</th>
<th>Part No. Electroless Nickel</th>
<th>Part No. Black Zinc Nickel</th>
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<tbody>
<tr>
<td><strong>Plug</strong></td>
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<tr>
<td>Socket</td>
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<td>2102353-1</td>
<td>2102353-2</td>
</tr>
<tr>
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<td>B</td>
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<td>1-2102343-2</td>
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<tr>
<td>Box-Mount Receptacle, PC Tail</td>
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<td>2102453-2</td>
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<tr>
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<td>B</td>
<td>2102453-5</td>
<td>2102453-6</td>
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<tr>
<td>Jam Nut Receptacle, PC Tail</td>
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</table>

### Contacts

<table>
<thead>
<tr>
<th>Wire Size</th>
<th>Part No. Pin</th>
<th>Part No. Socket, Hooded</th>
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</thead>
<tbody>
<tr>
<td>24 – 26 AWG</td>
<td>2102349-3</td>
<td>2102350-5</td>
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</table>

### Application Tooling

- **Hand Crimp Tool:** M22520/2-01
- **Crimp Positioner:** TE Part No. 2217375-1
- **Insertion/Extraction Tool:** TE Part No. 2217376-1

**Raytronics AG, Bösch 37, CH-6331 Hünenberg, Tel: +41 41 768 65 75, Fax: +41 41 768 65 80**

E-Mail: info@raytronics.ch, Webseite: www.raytronics.ch, www.schrumpfschlauch.ch
CeeLok FAS-T Connectors

PRODUCT DIMENSIONS

Boxmount Receptacle Kit Assembly
Part No. 2102343

Jam Nut Receptacle Assembly, PC Tail
Part No. 2102351

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CeeLok FAS-T Connectors

**PRODUCT DIMENSIONS**

**Receptacle Kit Assembly**
Part No. 2102352

<table>
<thead>
<tr>
<th>Receptacle Assembly</th>
<th>Aluminum Shell</th>
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</thead>
<tbody>
<tr>
<td>11/16” — 24 Threads</td>
<td></td>
</tr>
<tr>
<td>Triple Start 5/8” Modified Acme Thread</td>
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</tr>
<tr>
<td>Red Full Mate Indicator</td>
<td></td>
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<tr>
<td>O-Ring</td>
<td></td>
</tr>
<tr>
<td>Plug Assembly Aluminum Shell and Nut</td>
<td></td>
</tr>
</tbody>
</table>

1/8” Max. Panel Thickness

**Plug Kit Assembly**
Part No. 2102353

| Plug Assembly Aluminum Shell and Nut |
| Socket Contact (2102350-5) |
| Pin Contacts (2102349-3) |

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CeeLok FAS-T Connectors

**PRODUCT DIMENSIONS**

**Boxmount Receptacle Assembly, PC Tail**

Part No. 2102453

- **Front Insert**: Qty. 1, Material: Black Thermoplastic
- **Internal Snap Ring**: Qty. 1, Material: Stainless Steel
- **Rear Insert**: Qty. 1, Material: Black Thermoplastic
- **Contact Pins**: Qty. 8, Material: Gold Plated Leaded Copper
- **Red Full Mate Indicator Band**: 5/8" Modified Triple Start Acme Thread
- **Receptacle**: Qty. 1, Material: Aluminum
- **Master Key**
- **Board Mounting Holes**: 3X 4-40 UNC
- **Dimensions**:
  - 4X Ø .094
  - 2X .362
  - .125
  - .723
  - .723
  - .913

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CeeLok FAS-T Connectors

**PRODUCT DIMENSIONS**

**Protective Cover Cap, Plug**
Part No. 2221682-1

![Diagram of Protective Cover Cap, Plug]

- **Lanyard:** Material: Stainless Steel Wire
- **Rivet:** Material: Steel, Finish: Black Zinc Nickel
- **Protective Cover:** Material: Aluminum Alloy 6061-T6, Finish: Electroles Nickel
- **Ring:** Material: Stainless Steel, Finish: Passivated
- **Interfacial Seal:** Material: Silicone Rubber

**Protective Cover Cap, Receptacle**
Part No. 2221478-1

![Diagram of Protective Cover Cap, Receptacle]

- **Lanyard:** Material: Stainless Steel Wire
- **Rivet:** Material: Steel, Finish: Black Zinc Nickel
- **Rivet, Oval:** Material: 300 Series Stainless Steel, Finish: Passivated
- **Ring:** Material: Stainless Steel, Finish: Passivated
- **Protective Cover:** Ratchet Style, Finish: See Table

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CeeLok FAS-T Connectors

ACCESSORIES

SolderSleeve Shield Terminators

Convenient and Effective
- Terminates a ground lead to cable shield in order to ground the shield
- Simple, quick termination
- Available with and without pigtails

Versatile
- Center or end strip for ease of termination
- Handles wide range of high data rate cables and diameters

Environmental
- Operating temperature: -55°C to +200°C
- Environmentally sealed
- Mechanically robust

Physical or Other Properties
- Terminates tin, silver and nickel flat or round braids
- Provides 360° of shielding

Product Offering
- Contact TE for a complete listing of SolderSleeve shield terminators

CRES-Lock Bandstraps

Easy to Use
- Quick, easy, cost-effective and reliable termination of braided shielding

High Performance
- Low profile, one-piece design eliminates EMI leakage paths

Rugged
- Shock, vibration and environmental tested to meet aerospace and defense requirements

Electrical
- Operating Temperature: -65°C to +200°C
- Electrical Resistance: Meets ≤1.0 mΩ requirement of AS85049/128
- Corrosion Resistance: 500 hr. salt spray

Mechanical
- Tensile Strength: 200 lb.
- Braid Retention: Meets 100 lb. requirement of AS85049/128

Application Tooling
- Micro Tie-Dex II, A30199

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandstrap</td>
<td>BND-0812S</td>
</tr>
</tbody>
</table>
CeeLok FAS-T Connectors

ACCESSORIES
Heat-Shrinkable Molded Boots

Hazard Matched
• Different materials to meet different temperature and environmental requirements
• Optional with pre-applied adhesives for quick installation and high-reliability IP67 sealing
• Epoxy sealing kits available

Versatile
• Sealing and strain relief to the wires and cables
• Straight or 90 degree cable exit

Application Tooling
• HL1910E or the HG-501A ThermoGun heat gun and appropriate hot air reflectors

Product Offering

<table>
<thead>
<tr>
<th>Temperature Range</th>
<th>Material</th>
<th>Adhesive Lined</th>
<th>Size* mm</th>
<th>Descriptive Part No.</th>
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</thead>
<tbody>
<tr>
<td>-20°C to 60°C</td>
<td>Flexible polyolefin</td>
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<tr>
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<td>-55°C to 120°C</td>
<td>Fluid-resistant elastomer</td>
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<td>Flexible polyolefin</td>
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<td>-55°C to 200°C</td>
<td>Modified fluoroelastomer</td>
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<td>-75°C to 150°C</td>
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<td>Fluid-resistant elastomer</td>
<td>No</td>
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<td>202K132-25-0</td>
</tr>
</tbody>
</table>

*Size = as-supplied diameter both ends/recovered diameter connector end/recovered diameter cable end.

Compact and Lightweight
• Thin-wall technology for smaller, lighter cables
• 28 AWG to 22 AWG conductors

Versions for Common Protocols
• Fast and Gigabit Ethernet in Cat 5e and Quadrax configurations
• IEEE 1394
• USB

Rugged
• Specialized TE developed polymer formulations designed to support better mechanical and thermal performance in harsh environments
• State-of-the-art FAA approved foam dielectrics for better signal transmission
• Ruggedized zero halogen jacket for marine applications that passes the rigorous military standards for flammability while meeting stringent smoke and toxicity requirements

Customizable
• Customizable to meet mission-critical needs such as EMI, fluid resistance, and flammability
• Hybrid designs
• Electrical testing capability, including skew and eye patterns

Robust
• Operating temperature range from -55°C to +200°C
• Full range of shielding options for signal integrity

High-Data-Rate Cables

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