

# COTSWORKS®

## Interconnect

### Product Matrix

**USA/ ASIA PACIFIC:**  
749 Miner Rd.  
Highland Heights, OH 44143  
440.446.8800

**EMEA:**  
Am Alten Schlachthof 4  
36037 Fulda, Germany  
+49 (0) 661 9786 9200

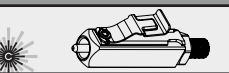






COTSWORKS.com



						<div>MIL</div> <div>D38999</div> <div>SM &amp; MM</div>				
						<div>MT-T</div> <div>MT TAB</div> <div>SM &amp; MM</div>	<div>CB</div> <div>C-BEAM</div> <div>MM</div>	<div>HD</div> <div>HIGH DENSITY CABLING</div> <div>SM &amp; MM</div>	<div>SHP</div> <div>SHIPBOARD</div> <div>SM &amp; MM</div>	<div>μM</div> <div>MICRO D38999</div> <div>SM &amp; MM</div>
						<div>MT-T</div> <div>MT TAB KIT</div> <div>SM &amp; MM</div>	<div>ELIO</div> <div>ARINC 801 2.5mm</div> <div>SM &amp; MM</div>	<div>MMF</div> <div>MULTI MODE FIBER 50/62.5μm</div> <div>SM &amp; MM</div>	<div>PTFE</div> <div>TEFLON</div> <div>SM &amp; MM</div>	<div>A600</div> <div>ARINC 600</div> <div>SM &amp; MM</div>
<div>COM</div> <div>COMMERCIAL</div> <div>ST, FC, SC</div>	<div>A801</div> <div>ARINC 801 1.25mm</div> <div>SM &amp; MM</div>	<div>MT</div> <div>EXPANDED BEAM</div> <div>SM &amp; MM</div>	<div>29504</div> <div>POF M29504</div> <div>SM &amp; MM</div>	<div>MMF+</div> <div>MULTI MODE FIBER 100/140μm</div> <div>SM &amp; MM</div>	<div>PVC</div> <div>CHLORIDE</div> <div>SM &amp; MM</div>	<div>TF</div> <div>TFOCA</div> <div>SM &amp; MM</div>				
<div>LC</div> <div>LC CONNECTOR</div> <div>SM &amp; MM</div>	<div>A801</div> <div>LIGHTLY™</div> <div>SM &amp; MM</div>	<div>MT</div> <div>BREAKOUT</div> <div>SM &amp; MM</div>	<div>29504</div> <div>M29504/4&amp;5</div> <div>SM &amp; MM</div>	<div>SMF</div> <div>SINGLE MODE FIBER 5μm-9μm</div> <div>SM &amp; MM</div>	<div>PE</div> <div>POLYETHYLENE</div> <div>SM &amp; MM</div>	<div>NAV</div> <div>M28876</div> <div>SM &amp; MM</div>				
<div>LC-R</div> <div>LC RUGGED</div> <div>SM &amp; MM</div>	<div>A801</div> <div>POF</div> <div>SM &amp; MM</div>	<div>MT</div> <div>MTP/MPO</div> <div>SM &amp; MM</div>	<div>29504</div> <div>M29504/14&amp;15</div> <div>SM &amp; MM</div>	<div>PLX</div> <div>SIMPLEX/ DUPLEX</div> <div>SM &amp; MM</div>	<div>POF</div> <div>PLASTIC OPTICAL FIBER 1mm</div> <div>SM &amp; MM</div>	<div>EN</div> <div>EN4165</div> <div>SM &amp; MM</div>				
<div>LC-T</div> <div>LC TAB</div> <div>SM &amp; MM</div>	<div>LC-801</div> <div>LOCKING TAB ARINC 801 ADAPTER</div> <div>SM &amp; MM</div>	<div>VITA</div> <div>66 &amp; 87</div> <div>SM &amp; MM</div>	<div>29504</div> <div>M29504/20&amp;21</div> <div>SM &amp; MM</div>	<div>CPLX</div> <div>COMPLEX/ MULTI-CH</div> <div>SM &amp; MM</div>	<div>PMMA</div> <div>ACRYLIC 50μm-1mm</div> <div>SM &amp; MM</div>	<div>EPX</div> <div>EN4644</div> <div>SM &amp; MM</div>				
<div>LC-T</div> <div>DUPLEX</div> <div>SM &amp; MM</div>	<div>LC-T801</div> <div>METAL LATCH ARINC 801 ADAPTER</div> <div>SM &amp; MM</div>	<div>MT</div> <div>MECHANICAL TRANSFER</div> <div>SM &amp; MM</div>	<div>JMS/P</div> <div>JEWEL SOCKET JEWEL PIN</div> <div>SM &amp; MM</div>	<div>RIBN</div> <div>RIBBON FIBER</div> <div>SM &amp; MM</div>	<div>HYB</div> <div>HYBRID ASSEMBLY COPPER/FIBER</div> <div>SM &amp; MM</div>	<div>EB</div> <div>EXPANDED BEAM</div> <div>SM &amp; MM</div>				

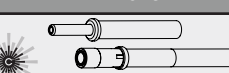
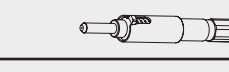
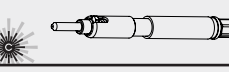
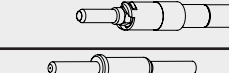
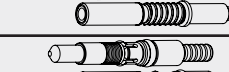
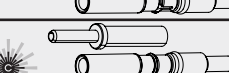
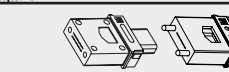
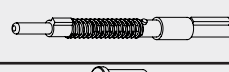


## Terminated Connectors

COTSWORKS offers custom designed fiber optic cable solutions to provide unique mechanical, optical, and cost saving benefits. Terminated connectors are selected based on the scope of the customer's needs. COTSWORKS rugged patented terminated connector products include the LC-R™ and LC-T™.

Part	Name	Description	Material	Application
	<b>LC-T™</b>	Rugged metal connector replaces plastic LC utilizing an innovative retention tab. Secure interface for high shock and vibe applications.	Metal, Zirconia Ferrule	■
	<b>LC-R™</b>	Rugged LC connector utilizing a tab & screw assembly. Metric threaded Torx size 5 screw, secure interface for high shock and vibe applications.	Metal, Zirconia Ferrule	■
	<b>LC</b>	Compliant to GR-326-CORE requirements, Grade B IEC-61753-1, UL rated housing and boots, also comes in duplex & APC	Plastic, Zirconia Ferrule	▲ ● ★
	<b>SC</b>	The SC connector series designed to comply with the telecommunication industry's rigorous testing requirements for years of reliable service.	Plastic, Zirconia Ferrule	▲ ●
	<b>FC</b>	FC connector series designed to comply with the telecommunication and testing industry's rigorous requirements for years of reliable service.	Metal, Zirconia Ferrule	▲ ●
	<b>ST</b>	The ST premium connector is a legacy metal body bayonet style connector available in singlemode and multimode. This connector can also be polished to APC & UPC	Metal, Zirconia Ferrule	■
	<b>SMA</b>	The SMA connector is used in various specialized applications. The metal ferrule allows manufacturability to a wide variety of fiber sizes including those of Plastic Optical Fibers (POF).	Metal	▲

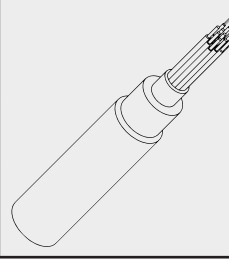
## Termini

Termini are selected at the design phase for their high reliability and built for use in harsh environment applications. Higher shock, vibration, and more stringent handling requirements are needed as well as adherence to Military standards such as MIL-PRF-29504 and Commercial Aerospace standards.

Part	Name	Description	Material	Application
	<b>C-Beam™</b>	COTSWORKS Expanded Beam terminus mated pair with a repairable lens. Easy to clean. Size 16 terminus.	Metal, Glass, Zirconia Ferrule	■
	<b>ARINC 801</b>	Gender neutral aerospace grade. Pull proof, non pull proof. ARINC standard for commercial aerospace. Size 16 terminus.	Metal, Zirconia Ferrule	▲ ■
	<b>Lightly™</b>	COTSWORKS Lightly™ - ARINC 801 style terminus with an insertion and removal tool built into the terminus. Easy to use and no extra tooling needed. Size 16 terminus.	Metal, Zirconia Ferrule	▲ ■
	<b>POF ARINC 801</b>	ARINC 801 style terminus for Plastic Optical Fiber. Size 16 terminus.	Metal	■
	<b>M29504/4,5</b>	Rear release gendered Mil-Spec terminus. Size 16 terminus.	Metal, Zirconia Ferrule	■
	<b>M29504/14,15</b>	Front release gendered Mil-Spec terminus. Size 16 terminus	Metal, Zirconia Ferrule	■
	<b>POF M29504/4,5</b>	M29504 style terminus mated pair for Plastic Optical Fiber (POF). Size 16 terminus	Metal	■
	<b>MT Ferrule</b>	Mechanical Transfer High channel density 12, 24, up to 72 channels. 16, 32 channel variants, Expanded Beam and angled polish available	Plastic, Glass	▲ ● ★
	<b>ELIO</b>	2.5mm ferrule terminus, bayonet style locking system, compatible with tight & loose structure cable.	Plastic, Zirconia Ferrule	■
	<b>Jewel</b>	Rear release gendered Mil-Spec terminus. Pin & socket terminus design utilizing ruby endface. Size 16 terminus.	Metal, Ruby	■

## Fiber

Fiber cabling capabilities include: multimode or singlemode cable support, singlecore and multicore plastic optical fiber, fixed attenuator cables. All glass cable types are available in discrete & multi-channel constructions including distribution and breakout style cables along with high density ribbon fibers.

Fiber	Type	Description	Application
	<b>Aerospace Grade</b>	Meets stringent FAA requirements	Aircraft
	<b>Tactical</b>	Ruggedized jacketing and strength member for harsh environments	Industrial, high traffic, extreme environments
	<b>Shipboard</b>	Meets Navy Specifications. LSZH (Low Smoke Zero Halogen) & flame retardant	Enclosed human occupied (aquatic) environments
	<b>Lab Grade/MQJ</b>	Cost effective while meeting optical specifications	Lab Testing of networking components
	<b>POF</b>	Plastic Optical Fiber. High loss option for single use or low cost items	Expendable, lightweight



Legend:



Rugged



Lab Use



Telecom









Multi-Channel



COTSWORKS Patented Product

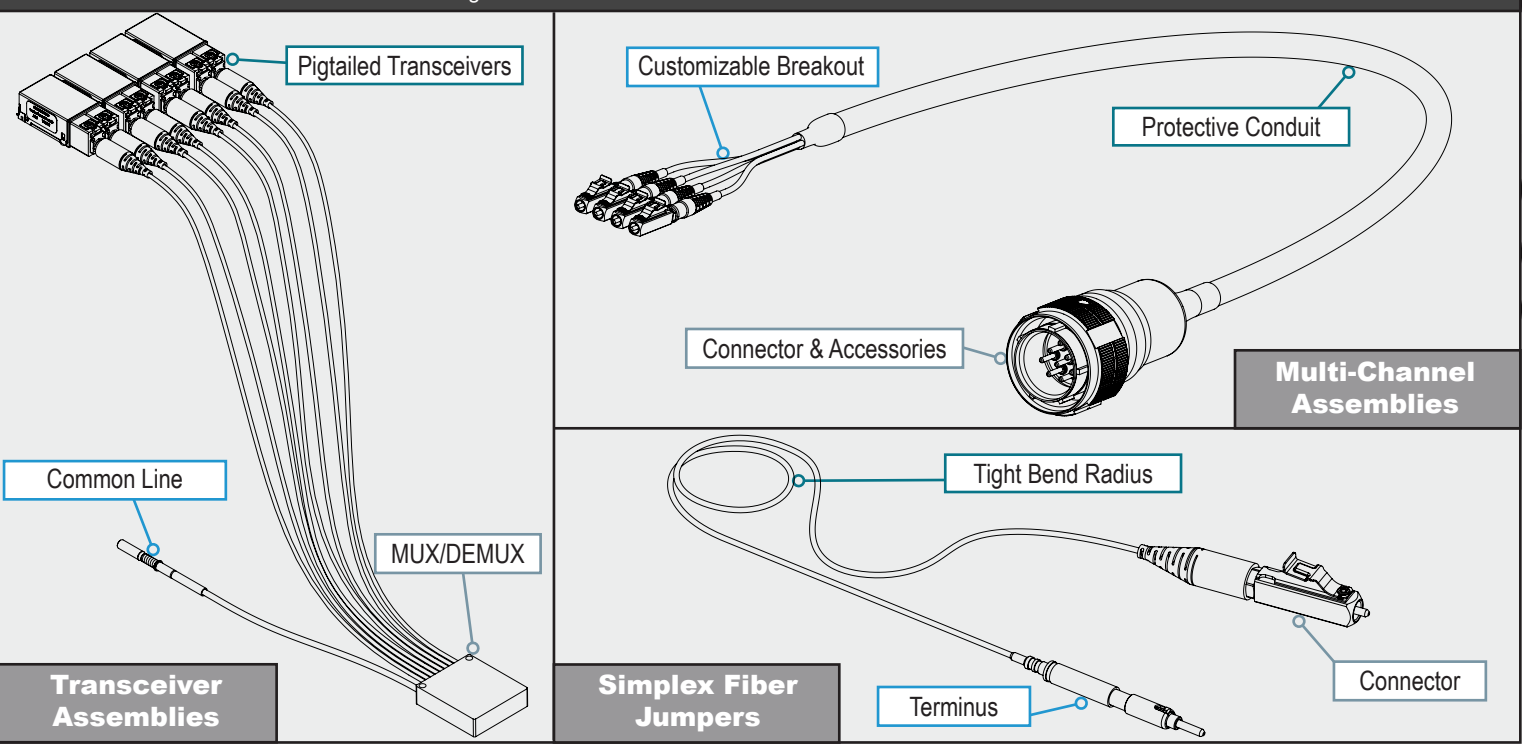
## Bulkhead Connectors

Every connector is inspected visually, as well as with an interferometer, to ensure a pristine endface with geometry that meets or exceeds specifications.

Part	Name	Description
	<b>MIL-DTL-38999</b>	Military Detail 38999   Mil-Aero M29504/4,5
	<b>ARINC D38999</b>	ARINC 801 standard terminus with bulkhead capability   Lightly™, ARINC 801
	<b>μ-D38999</b>	Micro variations of the D38999 circular connectors   C-Beam
	<b>MT D38999 Style Connectors</b>	High channel density with Mil-Spec performance   MT-12, MT-24
	<b>MIL-PRF-28876</b>	Harsh shipboard environments, rugged naval applications   M29504/14,15
	<b>EN4165</b>	Commercial aerospace cabin systems interface, mono/multi modules

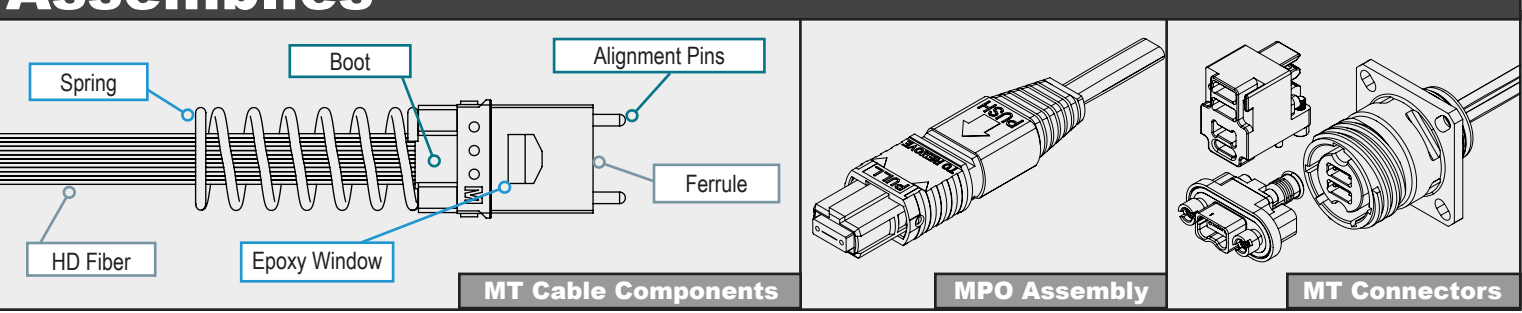
## Custom Cable Assemblies

COTSWORKS designs and manufactures fiber optic cable assemblies utilizing MIL Standard and high-quality Commercial Off The Shelf materials with qualified processes. Components are processed under AS9100 operation for required traceability. 100% testing is done with the option of endface image and geometries tracked to serialization of assemblies.



## MT Cable Assemblies

COTSWORKS specialty fiber optic cable manufacturing includes high density fiber optic termini and connectors. 'MT' or Mechanically Transfer Ferrule is a multi-fiber optic ferrule that is commonly used in High Density fiber optic termination and is combined with other hardware to form robust connector solutions.



Questions? Contact us at 440-446-8800 or visit us at [COTSWORKS.com](https://www.cotsworks.com)