

COTSWORKS® Interconnect Product Matrix

MIL

D38999

SM & MM

MT-T
MT TAB
SM & MM

CB
C-BEAM
MM

HD
HIGH DENSITY
CABLING
SM & MM

SHP
SHIPBOARD
SM & MM

μM
MICRO D38999
SM & MM

MT-T
MT TAB KIT
SM & MM

ELIO
ARINC 801
2.5mm
SM & MM

MMF
MULTI
MODE FIBER
50/62.5μm

PTFE
TEFLON
SM & MM

A600
ARINC 600
SM & MM

COM
COMMERCIAL
ST, FC, SC

A801
ARINC 801
1.25mm
SM & MM

MT
EXPANDED
BEAM
SM & MM

29504
POF M29504
SM & MM

MMF+
MULTI
MODE FIBER
100/140μm

PVC
CHLORIDE
SM & MM

TF
TFOCA
SM & MM

LC
LC
CONNECTOR
SM & MM

A801
LIGHTLY™
SM & MM

MT
BREAKOUT
SM & MM

29504
M29504/4&5
SM & MM

SMF
SINGLE
MODE FIBER
5μ-9μm

PE
POLYETHYLENE
SM & MM

NAV
M28876
SM & MM

LC-R
LC RUGGED
SM & MM

A801
POF
SM & MM

MT
MTP/MPO
SM & MM

29504
M29504/14&15
SM & MM

PLX
SIMPLEX/
DUPLEX
SM & MM

POF
PLASTIC
OPTICAL FIBER
1mm
SM & MM

EN
EN4165
SM & MM

LC-T
LC TAB
SM & MM

LC-801
LOCKING TAB
ARINC 801
ADAPTER
SM & MM

VITA
66 & 87
SM & MM

29504
M29504/20&21
SM & MM

CPLX
COMPLEX/
MULTI-CH
SM & MM

PMMA
ACRYLIC
50μ-1mm
SM & MM

EPX
EN4644
SM & MM

LC-T
DUPLEX
SM & MM

LC-T801
METAL LATCH
ARINC 801
ADAPTER
SM & MM

MT
MECHANICAL
TRANSFER
SM & MM

JMS/P
JEWEL SOCKET
JEWEL PIN
SM & MM

RIBN
RIBBON
FIBER
SM & MM

HYB
HYBRID
ASSEMBLY
COPPER/FIBER
SM & MM

EB
EXPANDED
BEAM
SM & MM

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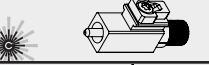
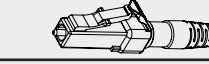
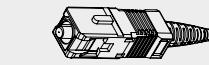
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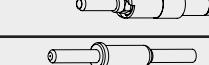
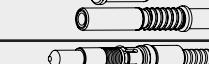
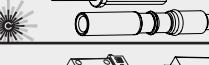
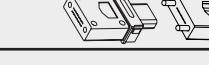
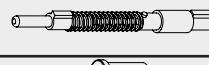
Terminated Connectors

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
	LC-T™	Rugged metal connector replaces plastic LC utilizing an innovative retention tab. Secure interface for high shock and vibe applications.	Metal, Zirconia Ferrule	■
	LC-R™	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	■
	LC	Compliant to GR-326-CORE requirements, Grade B IEC-61753-1, UL rated housing and boots, also comes in duplex & APC	Plastic, Zirconia Ferrule	▲ ● ★
	SC	The SC connector series designed to comply with the telecommunication industry's rigorous testing requirements for years of reliable service.	Plastic, Zirconia Ferrule	▲ ●
	FC	FC connector series designed to comply with the telecommunication and testing industry's rigorous requirements for years of reliable service.	Metal, Zirconia Ferrule	▲ ●
	ST	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	■
	SMA	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	▲

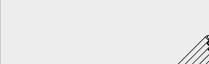
Termini

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
	C-Beam™	COTSWORKS Expanded Beam terminus mated pair with a repairable lens. Easy to clean. Size 16 terminus.	Metal, Glass, Zirconia Ferrule	■
	ARINC 801	Gender neutral aerospace grade. Pull proof, non pull proof. ARINC standard for commercial aerospace. Size 16 terminus.	Metal, Zirconia Ferrule	▲ ■
	Lightly™	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	▲ ■
	POF ARINC 801	ARINC 801 style terminus for Plastic Optical Fiber. Size 16 terminus.	Metal	■
	M29504/4,5	Rear release gendered Mil-Spec terminus. Size 16 terminus.	Metal, Zirconia Ferrule	■
	M29504/14,15	Front release gendered Mil-Spec terminus. Size 16 terminus	Metal, Zirconia Ferrule	■
	POF M29504/4,5	M29504 style terminus mated pair for Plastic Optical Fiber (POF). Size 16 terminus	Metal	■
	MT Ferrule	Mechanical Transfer High channel density 12, 24, up to 72 channels. 16, 32 channel variants, Expanded Beam and angled polish available	Plastic, Glass	▲ ● ★
	ELIO	2.5mm ferrule terminus, bayonet style locking system, compatible with tight & loose structure cable.	Plastic, Zirconia Ferrule	■
	Jewel	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
	Aerospace Grade	Meets stringent FAA requirements	Aircraft
	Tactical	Ruggedized jacketing and strength member for harsh environments	Industrial, high traffic, extreme environments
	Shipboard	Meets Navy Specifications. LSZH (Low Smoke Zero Halogen) & flame retardant	Enclosed human occupied (aquatic) environments
	Lab Grade/MQJ	Cost effective while meeting optical specifications	Lab Testing of networking components
	POF	Plastic Optical Fiber. High loss option for single use or low cost items	Expendable, lightweight

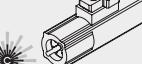
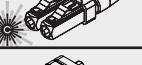
Bulkhead Connectors

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

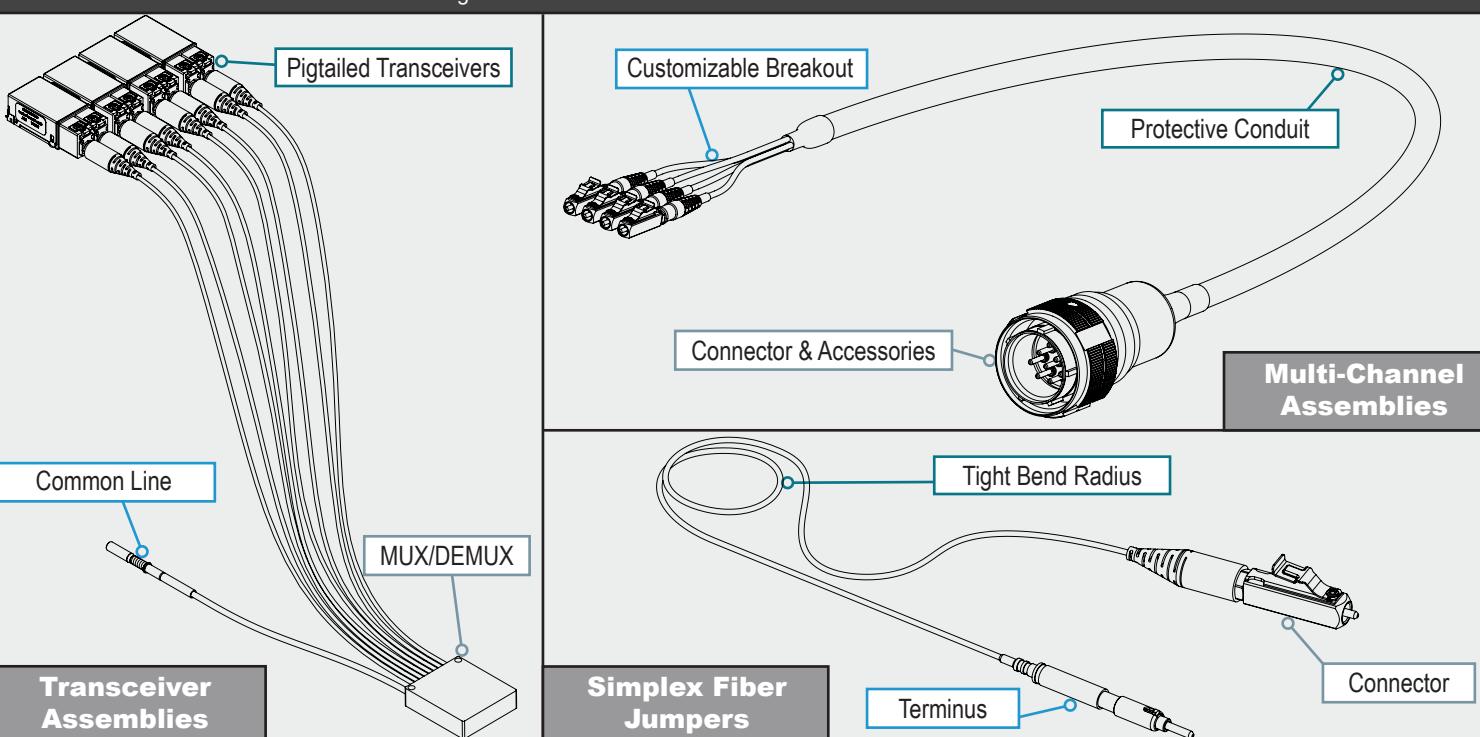
Rugged Adapters

Use your existing cables to interface with COTSWORKS transceivers utilizing these COTSWORKS Rugged Adapters

Part	Name	Description
	LC-T801™	Adapts LC receptacle to ARINC 801 receptacle utilizing LC-T retention feature for robust connection
	LC-801™	Adapts LC receptacle to ARINC 801 receptacle utilizing LC-R retention feature for semi-permanent installation
	Duplex LC-T	Ruggedized metallic duplex LC connector utilizing the LC-T retention feature
	ASR	Alignment sleeve retainer for EPX and ARINC 600 type connectors
	LC-T/LC Adapter	Simplex LC to LC rugged metal adapter. Can be used with the LC-T and LC-R

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.

