

FIBER OPTIC SOLUTIONS

Reliability, Consistency and Quality

Custom Cables

MTP® / MPO Solutions

Network Racks

MXC™ Connectors

PRIZM® LightTurn®

Patch Panels

Fan-Outs

Engineering

Sheet Metal

Tools & Testers

Network Copper Cables

FIBERTRONICS 

Custom Fiber Optic Cables



We specialize in custom cable assemblies, it's our bread and butter, it's what we do!

While we do offer a complete selection of pre-built fiber optic patch cables we often find our clients have very specific requirements and we are always ready to assist.

Be it Single-mode, Multi-mode, Simplex, Duplex, LC, FC/APC or anything in-between, we can build it!

In order to start a build we typically need to know a few simple things before we can begin building your ideal cable.

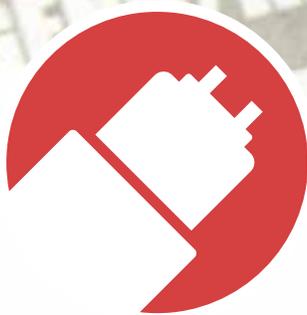
- Fiber Mode (Single-mode or Multi-mode)
- Simplex, Duplex or Multi-fiber
- Connector Types
- Jacket Material (Riser, Plenum or LSZH)
- Length of the Cable

Of course cable requirements can get more in-depth, especially when it comes to multi-fiber assemblies. Here you can choose from single fiber connectors, MTP/MPO's along with different combinations thereof.

You name it, we can build it!



MTP® / MPO Solutions



With a huge demand for more bandwidth and more space efficiency Multi-fiber Push-On (MPO) connectors have answered the call and provide up to 24 or more fibers in a single connector pushing up to and beyond 100Gbps.

MTP® and MPO are often used interchangeably. MTP® is a registered trademark of US Conec. Both MTP® and MPO are available with standard or elite / low loss options.

At Fibertronics we terminate our cables with both MPO and MTP® connectors, so please be sure to specify with our sales staff if you need genuine US Conec MTP® connectors.

Fibertronics Standards

Fibertronics 12 Fiber, OM3, MPO cables use Corning® ClearCurve® laser optimized bend-insensitive fiber. This type of fiber allows for tighter bends in your cables, so you can route without worry. The fiber comes in the form of 12 fiber, 3 mm micro-distribution cable, with an aqua Plenum jacket, which is rated for Riser and Plenum areas. The micro-distribution format uses 12 fibers in a loose tube jacket with protective aramid yarn, allowing for more flexibility and a smaller footprint than traditional ribbon cable.

We can also build these to your custom specifications, including using a different brand of fiber, different type of jacket, or even customer-supplied cable. Options such as OM4, LSZH jacket, ribbon cable, armored cable, indoor/outdoor cable, and more are available.

Network Racks



We offer high-quality Network Racks for housing standard 19" rack-mount equipment-servers as well as other devices such as routers, UPS' and audio / video gear.

Our range of Network Racks allow for better organization and management as well as providing additional security and cable management options while enabling better airflow to the mounted devices.

Our racks can be used anywhere where there is a need to house valuable telecom equipment within future or existing data centers, server rooms and network closets. They are particularly suited to use within industrial environments such as factory floors and workshops.

A variety of accessories are also available.

Features & Specifications

- Standard 19" Network Rack Cabinets.
- Available heights include: 18U, 22U, 27U, 32U, 37U and 42U.
- Easy access removable side panels.
- A surface finish featuring Degrease, Acid Pickling, Rust Prevention and Parkerizing, Pure Water Cleaning and a Static Electricity Powder Coating.
- Static load capacity of 1200kg (2646lbs).
Ventilation rate between 63% and 72%.



MXC™ Connectors



In today's world there is an ever-increasing need for more data, at even faster speeds.

The new MXC™ optical fiber connector system, created by US Conec™ and distributed by Fibertronics, uses high-density interconnect technology allowing for better connections at even greater speeds!

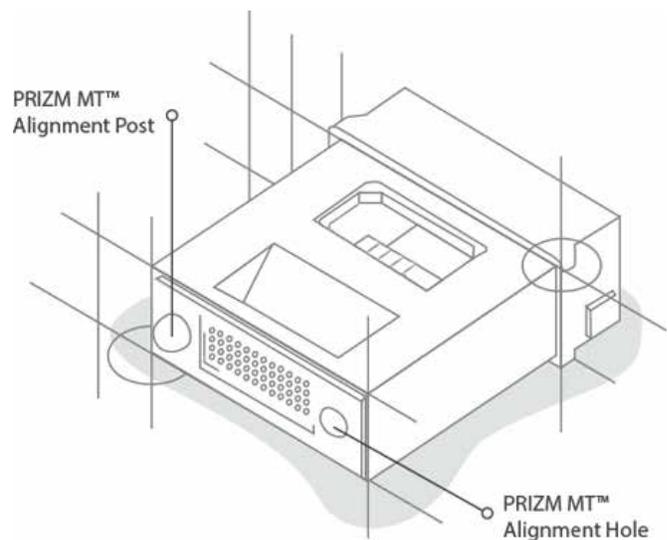
Being able to support greater bandwidth than traditional MT fiber optic connectors, MXC™ connectors are being rolled out wherever high-speed data transmission is a top priority.

PRIZM MT™ Ferrule

Able to support up to 64 fibers each handling one wavelength at 25 Gbps, the main component of the MXC™ connector system is the hermaphroditic PRIZM MT™ ferrule. This allows for speeds of up to 1.6 Tbit/s.

The dimensions of the MXC™ ferrule are the same as those of a MT ferrule used in MTP®/MPO connectors.

The key difference being that the PRIZM MT™ ferrule tip supports 64 micro lenses within 4 rows, each row containing 16 lenses.



PRIZM® LightTurn®



Fibertronics now stocks the US Conec™ PRIZM® LightTurn® Connector

Designed as a miniature detachable connector the PRIZM® LightTurn® connector provides passive alignment and novel retention features allowing multiple re-matings perpendicular to the printed circuit board.

This 12-fiber connector is made up of a multi-fiber floating ferrule with a photonic TIR lens enclosed in a protective housing. The perpendicular mating capability saves vast amounts of space on already densely packed circuit boards.

Important Key Features

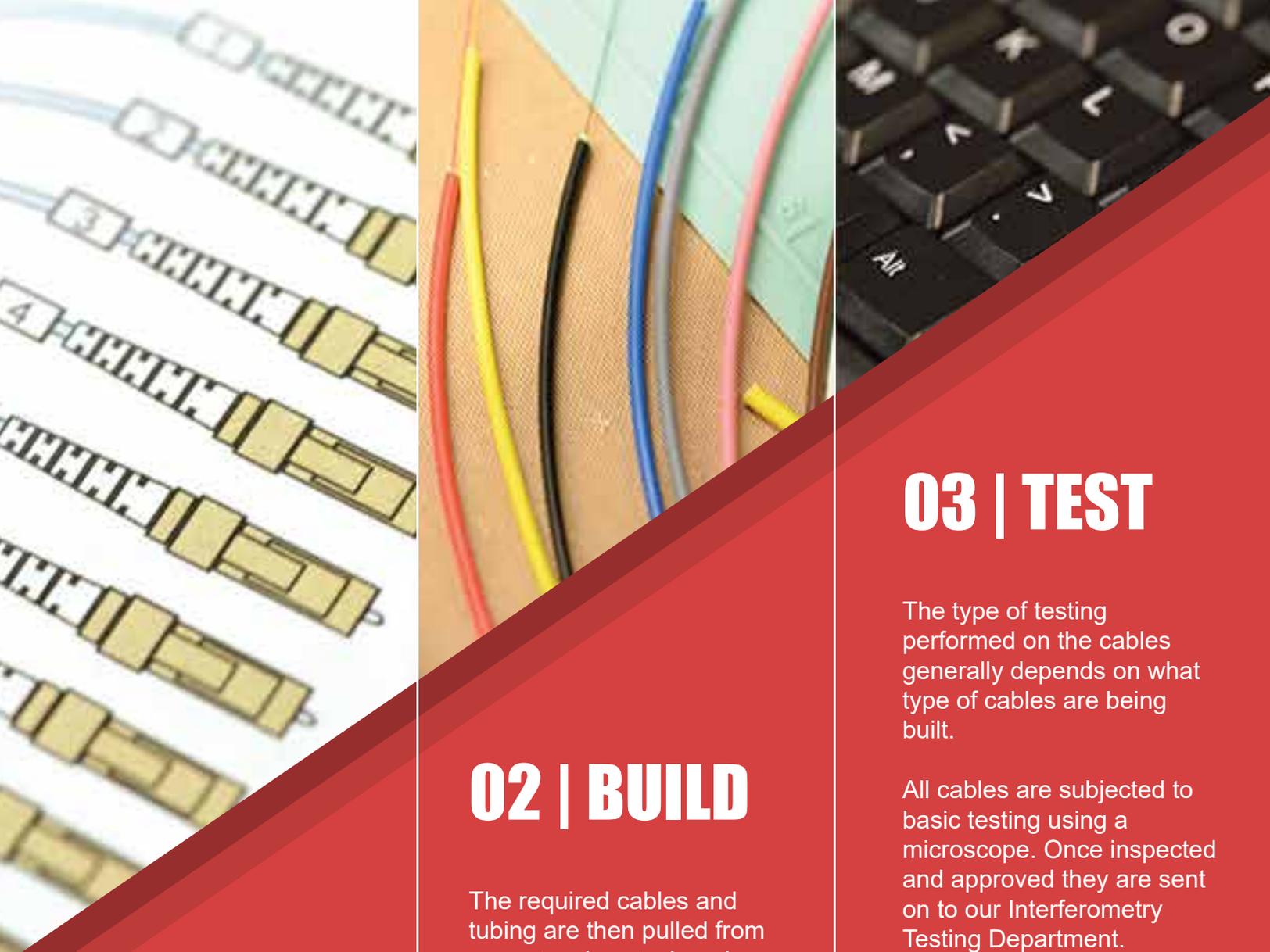
- Bidirectional components
 - Integrated alignment pins
 - Housing protects TIR lens array
 - Ferrule float within the connector
 - Pre-alignment latches on connector housing
 - Keyed for proper mating orientation
 - Quick termination, no polishing
 - Less than 1 minute light cure for epoxy
 - Collimated light at optical interface
- TIR (total internal reflection) lens
 - Wavelength independent optical grade material



HOW WE BUILD OUR QUALITY, CUSTOM FIBER OPTIC CABLES



Building quality, custom spec fiber optic cable assemblies is our specialty. We love what we do, which is why when we manufacture cables we do so only to the highest standards.



01 | DESIGN

Once we receive your custom cable order it is sent through to our Cable Design Department.

Here the materials needed are listed and a diagram is produced for use in the next step of the process.

02 | BUILD

The required cables and tubing are then pulled from our extensive stock and handed over to our skilled Assembly Technicians.

They then begin the process of cutting and putting together the cables according to the specific requirements laid out the by diagrams created in step 1.

Once completed the cables are moved on to polishing to ensure that the connectors are in optimal condition and testing the cables can begin.

03 | TEST

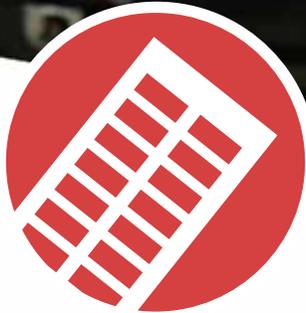
The type of testing performed on the cables generally depends on what type of cables are being built.

All cables are subjected to basic testing using a microscope. Once inspected and approved they are sent on to our Interferometry Testing Department.

Our qualified Interferometry Testers subject the cables and connectors to numerous tests such as insertion loss and return loss in order to ensure they meet, or exceed industry standards.

Once completed each cable has a print-out of its test results bundled with it and then it is then ready to be carefully shipped to you.

Patch Panels



Fibertronics offers flexible options for our High Fiber Count Patch panels

Our wall mounted fiber patch panels accommodate up to 12 modular panels and are equipped with routing guides to limit bend radius and enhance strain-relief control.

The 16-gauge steel with corrosion-resistant black powder coating provides excellent protection for the fibers inside the housing.

Wall-mount available unloaded, as well as being capable of becoming a full-splice enclosure with mechanical terminations.

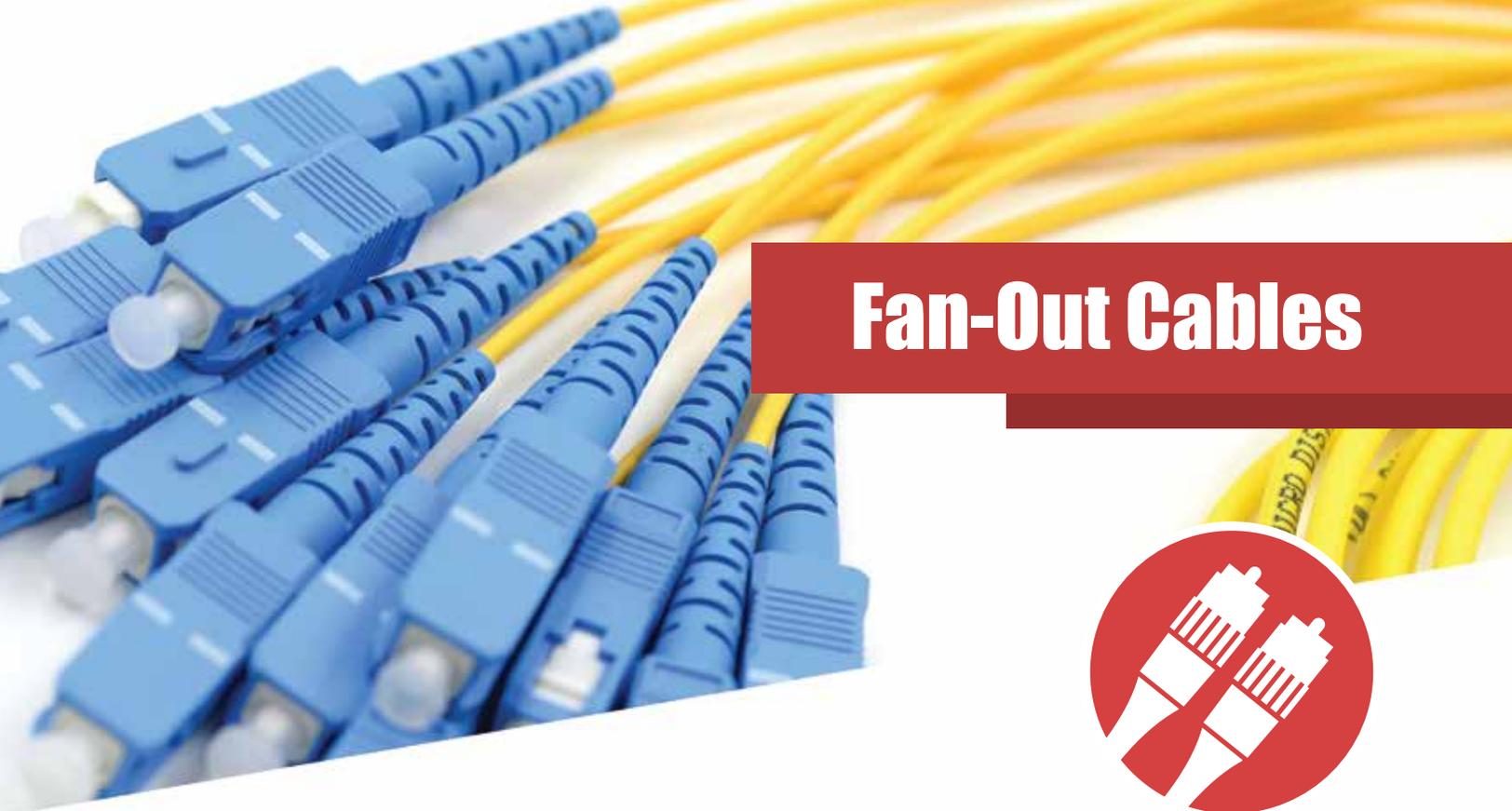
Upon request we can also pre-install various types of fiber optic pigtails inside patch panels, saving you a lot of time and effort.

Additionally we also offer a series of changeable inside panels to fit different kinds of the Adapter interfaces which will fit both round and ribbon fiber optic cables.

Our rack mounted fiber patch panels can be either drawer or economic type without a draw design.

Features & Specifications

- 19" Standard
- Light weight and robust structure
- Changeable modules inside
- Suitable for both ribbon and round cable
- Various panels to fit different adapter interfaces
- An improved design ensures that the fiber optic cable bend radius is not less than 40mm



Fan-Out Cables



If you're looking to connect multiple devices over long distances without wasteful cable use, Fibertronics' Fan-outs are the solution.

Also known as breakout cables, the most common is the 24" fanout attached to a 1 meter long cable assembly. 900µm tubes can be terminated with all connector types.

They are available in all fiber modes including 9/125, 50/125, 62.5/125, single-mode and multi-mode with duplex breakouts.

We offer a wide range of MTP® / MPO products including single-mode or multi-mode MPO and MTP Fan-Out assemblies.

Available Single-mode and Multi-mode MTP patch cables

- MTP-LC
- MTP-LC/APC
- MTP-SC
- MTP-SC/APC
- MTP-ST
- MTP-FC
- MTP-FC/APC
- MTP-MU
- MTP-MT-RJ
- MTP-E2000
- Custom Designed Cable

For customers that require more testing, interferometry test reports can be supplied upon request, prior to assembly.

MTP® / MPO end-face geometry, ferrule radius of curvature, fiber height and core dip are among some of the test data supplied.

Engineering



From initial concept through to final production, we work with our customers to help bring their ideas to life.

We often get very specific product requests from customers and this is when our in-house engineering department steps in.

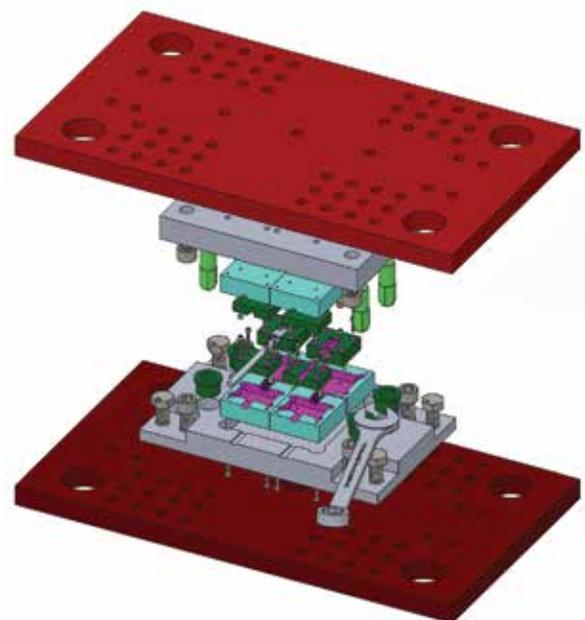
How it works

Combining form, fit and function is essential in ensuring the end result meets both your needs and expectations. We'll take the time to listen carefully to your ideas and product requirements. Once we have been supplied with some rudimentary specs or drawings we are ready to start work.

We begin this by creating accurate 3D Models and Renders, as well as providing highly detailed 2D Drawings.

During this phase, we try our best to stay within industry standards whenever possible to ensure compatibility and future-proofing.

Once everything has been approved and we have been given final sign-off we can begin the manufacturing process.



Sheet Metal Fabrication



At Fibertronics we produce our own top notch, custom, powder coated, metal products and specialized components.

Thanks to our industrial grade metal shop we are constantly churning out high quality, powder coated, metal products for use within the industry.

This allows us to ensure the highest quality standards but it also saves on expensive imports and the time it takes to receive them. With both money and time saved we are then able to pass on those savings to our valued customers. Proudly manufactured in the USA.

Some of our products include:

- Adapter Plates
- Cassettes
- Network Racks
- Patch Panels
- Network Rack Shelves



Tools & Testers



When you're out in the field working on your own fiber optic projects and installations you want to make sure you are working with the best tools available.

Fibertronics supplies high end tools, cleaners and testers from industry leading and well known international manufactures, the likes of which include Miller, Ripley, NoeClean, IBC and Greenlee.

Just to name a few.

Our extensive range of products includes the following:

- Optical Time Domain Reflectometer Fiber Optic Testers (OTDR)
- Fusion Splicers
- Fiber Optic Cleaning Swaps
- Kevlar Cutters
- Adjustable Fiber Optic Strippers
- Fiber Optic Scribes
- Polishing Pucks
- Slitters
- Field Cleaver Kits
- Die Sets
- Inspection Microscopes
- MPO Cleaners
- Visual Fault Locators
- Splice Sleeves



Network Copper Cables



If you're in the market for Ethernet Cables, you've most likely come across different types, including the most common ones, Cat5e and Cat6

We offer both Cat5e (Category 5 Enhanced) and Cat6 (Category 6) cable types.

Cat5e Cables

Our Cat5e cables are great at reducing cross-talk and confining signals to different channels, ensuring that the signals remain strong and that there is minimal interference.

Cat5e Ethernet Cables are capable of handling speeds of up to 1000 Mbps (known as Gigabit Ethernet) at 100 MHz.

Cat6 Cables

Fibertronics Cat6 cables are a step above, capable of handling speeds of up to 10 Giga-bits (10x faster than Cat5e) at 250 MHz.

They also continue to improve the reduction of cross-talk by making use of an internal separator that isolates cable pairs from each another. They are also entirely backwards compatible with Cat5e installations.

Network Cables are available in these colors.





FIBERTRONICS



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